

A 61  
**JVC**

# SERVICE MANUAL

MODEL  
**QL-Y3F**

QUARTZ FULLY AUTOMATIC  
TURNTABLE



No. 2521  
June 1980  
A 61

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**Warning:**

When replacing the parts marked with  $\Delta$ , be sure to use the designated parts to ensure safety.

## 1. Specifications

### MOTOR SECTION

|                             |   |
|-----------------------------|---|
| Motor                       | : Coreless, DC type, FG servo-motor                   |
| Drive system                | : Direct drive  |
| Speeds                      | : 33-1/3, 45 rpm                                      |
| Wow and flutter             | : 0.025% (WRMS)<br>0.015% (by K & K measuring method) |
| Signal-to-noise ratio       | : More than 78dB (DIN-B)                              |
| Speed detection             | : Frequency generator                                 |
| Starting torque             | : 650 g·cm  |
| Speed deviation             | : Within 0.002%                                       |
| Load characteristics        | : 0% (with 130g total tracking force)                 |
| Drift                       | : 0.0001%/H   |
| Power characteristics       | : 0% ( $\pm 10V$ )                                    |
| Temperature characteristics | : 0.00005%/ $^{\circ}$ C                              |
| Platter                     | : 31cm  |

### TONEARM SECTION

|                               |  |
|-------------------------------|--|
| Type                          | : Electronic servo controlled arm          |
| Effective length              | : 245mm                                    |
| Overhang                      | : 15mm                                     |
| Weight range                  | : 14 – 19.5 g (including headshell weight) |
| Variable tonearm height range | : 42 – 48mm (preset to 45mm)               |

### CARTRIDGE SECTION

(Except for U.S.A., Canada and the U.K.)

|                        |   |
|------------------------|---|
| Model                  | : Z-1EB   |
| Type                   | : Moving Magnet (MM)  |
| Frequency response     | : 10Hz – 25,000Hz   |
| Output                 | : 3mV (1,000Hz)   |
| Channel separation     | : 25dB (1,000Hz) (test record TRS-1)  |
| Load resistance        | : 47k $\Omega$ – 100k $\Omega$  |
| Compliance             | : 10 x 10 <sup>-6</sup> cm/dyne (Dynamic)<br>30 x 10 <sup>-6</sup> cm/dyne (Static) |
| Stylus tip             | : 0.3 x 0.7 mil diamond   |
| Stylus                 | : DT-Z1EB   |
| Optimum tracking force | : 1.75 ± 0.25 g   |

### GENERAL

|                   |   |
|-------------------|---|
| Power source      | : Refer to Table at page 24   |
| Power consumption | : Refer to Table at page 24   |
| Dimensions        | : 16.9(H) x 48(W) x 43(D)cm<br>(6-5/8" x 1-15/16" x 1-3/4")<br>(Since the dimensions show only the design measurements, consideration is required when installing the unit in a limited space such as a rack, etc.) |
| Weight            | : 9.5kg (20.9 lbs)<br>(without corrugated card board case)  |
| Accessory         | : EP adaptor . . . . . 1  |

*Design and specifications subject to change without notice.*

### CHECKING YOUR LINE VOLTAGE (For U.S. Military Market and Other Countries)

Before inserting the power plug, please check this setting to see that it corresponds with the line voltage in your area. If it doesn't, be sure to adjust the voltage selector switch to the proper setting before operating this equipment. The voltage selector switch is located either on the set's or the chassis. Simply insert a screw driver into the voltage selector switch and turn it in either direction while pressing slightly and in such a way that desired voltage marked on the switch is positioned at the arrow marked on the rear panel or the chassis. The voltage selector switch accommodates up to three turns in either direction.

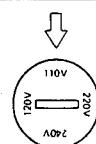


Fig. 1

## 2. Service Precautions

1. For repair of the tonearm, only the parts whose names and numbers are listed on page 17 are replaceable. So be careful not to remove any other part.
2. For repair of any component other than the tonearm, be sure to perform part replacement in accordance with the appropriate unit of the block shown in the disassembly diagram.
3. When remounting the motor base or tonearm ensure positive contact with the base of the tonearm (as shown in Fig. 23) and then secure.
4. Ensure that the turntable is level when servicing motor rotation or arm action.
5. If power is applied when the motor connector is disconnected the drive transistor will be damaged. Therefore, never disconnect the motor connector if the power is on or will be applied.
6. Note that when repairing the printed board, if the heat-sink is removed, transistor temperature will rise.
7. Upon completion of repair or replacement of the tonearm, motor or any other component, be sure to perform Lead-in and Lead-out adjustments.
8. Locating the tuner antenna and the turntable output lead closely may cause noise due to disturbance from the tuner; therefore, place them as far from one another as possible.

## 3. Names of Their Functions

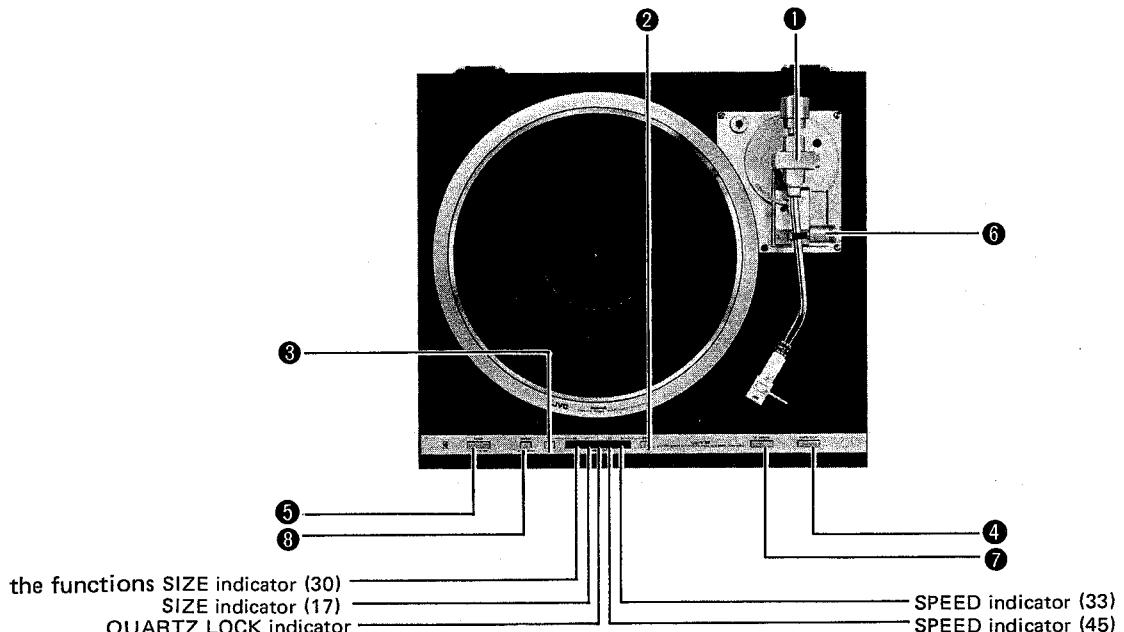


Fig. 2

### 1. Tonearm

This tonearm is called an Electro Servo Tonearm. All the functions, anti-skating, etc. are done electrically.

### 2. SPEED switch

Select the speed depending on record rpm. The platter rpm is indicated by the SPEED indicators.

### 3. SIZE switch

Select the size depending on record size. Selected size is indicated by the SIZE indicators.

### 4. START/STOP switch

Press this switch to rotate the platter. When the speed reaches normal, QUARTZ LOCK indicator (green) lights. Then the tonearm automatically lifts up and moves to lead-in.

### 5. READY switch

**ON:** Depress this switch to power the turntable system on. SPEED and SIZE indicators light. Anti-skating is automatically applied, as already set.

**OFF:** Re-depress the switch to cut the power off. The SPEED, SIZE and QUARTZ LOCK indicators go out, and anti-skating become "zero".

**Note:** When you re-depress the READY switch, make sure the tonearm is clamped on the arm rest, otherwise you may damage a record or the stylus. Even when the READY switch is set to OFF, about 2-watt power is consumed. Accordingly, disconnect the power cord from wall outlet to cut the power completely off.

### 6. ANTI-SKATING TRACKING FORCE knob

This knob is provided to cancel the centripetal force (sliding of the tonearm to the center of the record) and to prevent the stylus tip from sliding or exerting unwanted force to the inner side of the record groove. This is automatically and electrically set to the optimum value by selecting the designated stylus force.

### 7. UP/DOWN switch

When this button is pressed the tonearm will lower to the record surface. To lift the tonearm up from the record, press this button again.

### 8. REPEAT switch

Depress this button for repeated play.  
Press again to release the REPEAT function.

# 4. New Technology

## 4-(1) Electro-dynamic Servo Control Tonearm

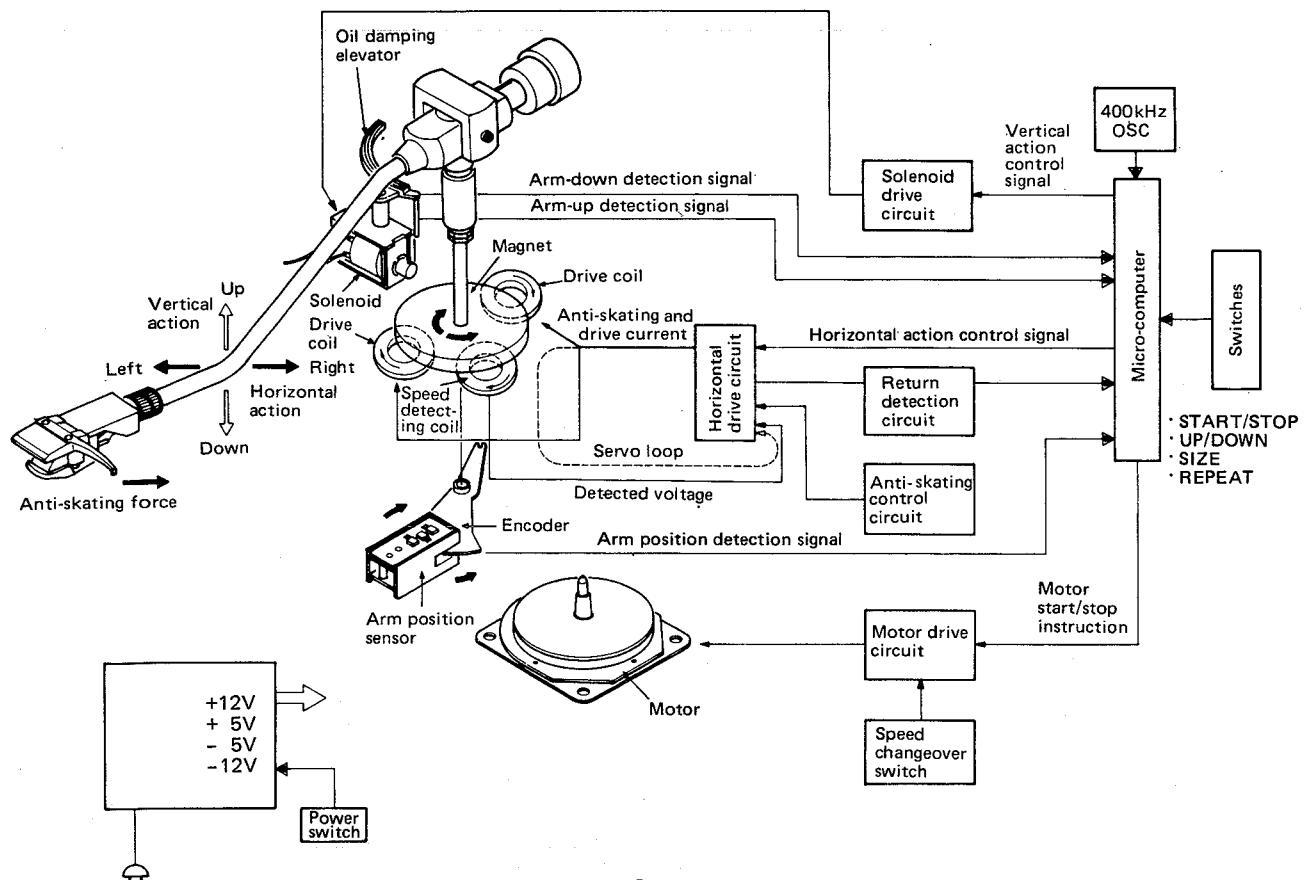
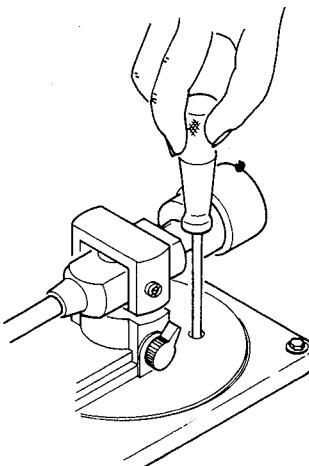


Fig. 3

## 4-(2) Detecting Record-end

In the Electro Servo Tonearm, since the tonearm speed is detected, the record feed pitch can also be electrically detected.

This tonearm is provided with a positional restriction device that detects the record end by using a LED and a phototransistor. Because this device is set, records falling within the standards range can be detected electrically.



## 4-(3) Lead-in Positioning

The lead-in positioning is performed by the microcomputer. The position (rotating angle) or the tonearm in motion is detected by reading the address (001, 010 . . . etc.) in the rotating encoder in unity with the tonearm by using the three LED/phototransistors.

The microcomputer always compares the position of the tonearm in motion and the designated lead-in position, stops the tonearm motion, and issues the command to lower the stylus on the record surface. In addition, this microcomputer determines the operating position of the tonearm rest switch and the starting position of lead-out as well. (Fig. 4)

Fig. 4

# 5. Adjustment Procedures

## 5-(1) UP Switch Adjustment

- Secure the tonearm on the rest with the clamp, and adjust the tonearm height to 5.5mm with the arm set screw. (Fig. 5, 6)
- Undo the clamp, set the UP/DOWN switch to the UP position, and adjust the clearance between the record disk and the stylus tip to 5 ~ 7mm height.

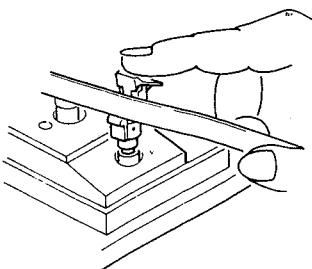


Fig. 5

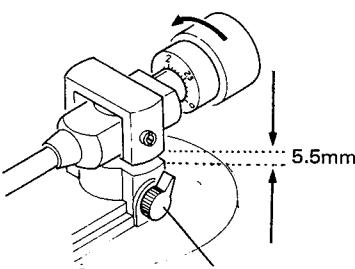


Fig. 6

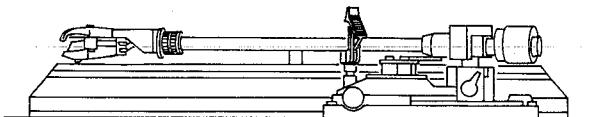


Fig. 8

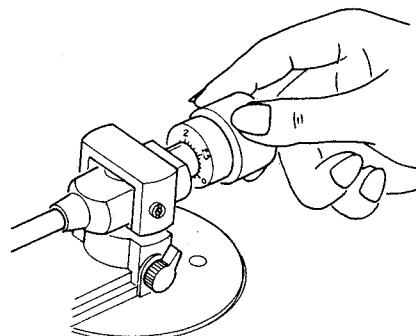


Fig. 9

- Prepare to measure the resistance value between terminals 3 and 4 of the plug ass'y (P1) on the circuit board (TXX-278-1).
- With the UP/DOWN switch set to the UP position, confirm that the measurement value is  $10k\Omega$  with the elevator raised to the uppermost limit. (When measuring, the rubber switch of the tonearm must be away from its point of contact with the elevator.)

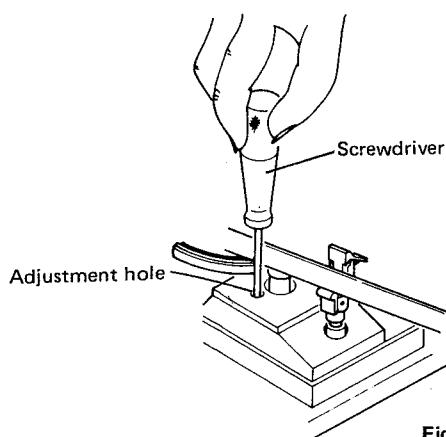


Fig. 7

In addition, if the value of  $10k\Omega$  is unobtainable, remove the elevator and insert a spacer between the elevator and the elevator shaft. Thereupon, adjust the contact separation between the rubber switch and contact separation between the rubber switch and the elevator to around 1mm ( $0.8 \sim 1.2mm$ ) in the playback mode.

## 5-(2) Tracking Force

- Place a record on the platter.
- Remove the stylus protector cover.
- Release the tonearm clamp.
- Turn the main weight so that the tonearm maintains a balance with the stylus tip is almost touching to the record. (Fig. 8, 9)

- Return the tonearm to its rest and clamp it.
- Hold the counterweight at the adjusted position and aligned with the index line on the tonearm weight shaft. Turn the counterweight in the A direction until the "1.75" mark on the dial is aligned with the index line for the model preparing cartridge Z-1EB. (Except the model QL-Y3F for U.S.A., CANADA, and (U.K.))

## 5-(3) Lead-in Adjustment

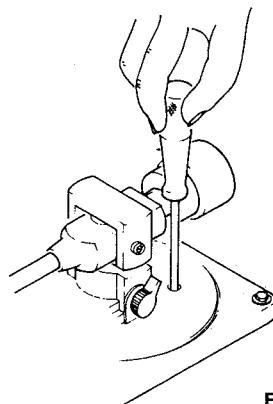


Fig. 10

Be sure to perform this adjustment prior to lead-out adjustment.

- Set the SIZE switch to 17. Then, turn the lead-in adjusting screw so that the tonearm sets down on the test record when the lead-in count on the test record shows  $16 \pm 3$ .

Note: For a larger lead-in count, turn the screw counterclockwise, whereas for a smaller lead-in count, turn it clockwise. However, the screw is provided with no stopper. Note therefore that excessive turning results in reversed directionality.

## 5-(4) Lead-out Adjustment

1. Adjust VR803 so that the tonearm returns at the 3mm pitch point of the test record (8602-44) and does not return at the 0.5mm pitch point of the test record (8602-45).

When the tonearm does not return at the 3mm pitch point of the test record (8602-44), adjust the voltage between TP-2 (GND) and TP-3 so that it is closer to 0V by about 20% than the set voltage.

When the tonearm returns at the 0.5mm pitch point of the test record (8602-45), adjust the said voltage so that it is closer to 0V by about 20% in absolute value than the set voltage.

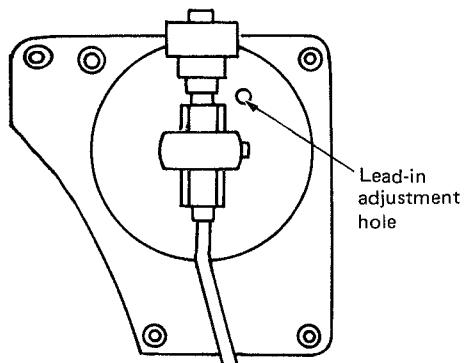
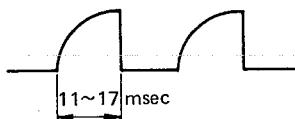


Fig. 11

Waveform on oscilloscope



Impedance conversion circuit

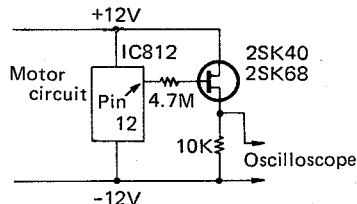


Fig. 12

## 5-(8) Anti-skating Adjustment

1. Set the anti-skating adjustment knob to 1.5g on the dial.
2. Adjust VR801 so that  $185 \pm 10\text{mV}$  appears between terminals 1 and 2 of VR805.

# 6. Disassembly

## Procedure

1. Removal of Yoke B (Figs 13 and 14)

As this yoke is a threaded type, turn it counterclockwise for removal.

Put a name card between the circuit board and the slightly freed yoke to protect the coils against any damage due to magnetic force.

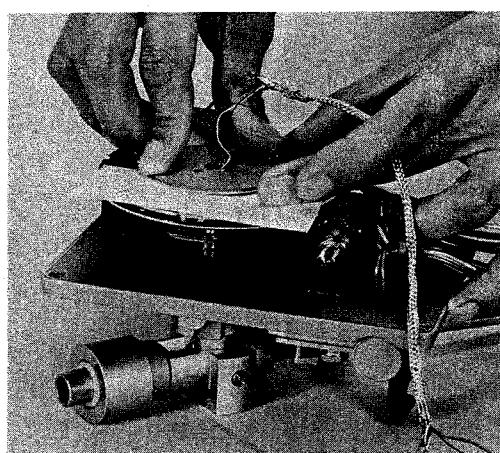


Fig. 13

## 5-(5) Motor's Rotation

Since this double servo quartz control turntable is designed to have a wider locking range than the conventional turntable, it is not required to adjust the RPM.

## 5-(6) Tonearm Off-set Position

Set the voltage between TP-1 and TP-2 to 0V by turning VR802 (with the tonearm secured to the arm rest in the "UP" position).

Note: Allowable range of "0V" is  $\pm 5\text{mV}$ .

## 5-(7) Quartz Oscillation Wave Phase Adjustment

1. Set RPM to 33-1/3.
2. Observe the wave duration (T) from leading to trailing edges, and adjust the duration to 11 ~ 17 msec with VR804.

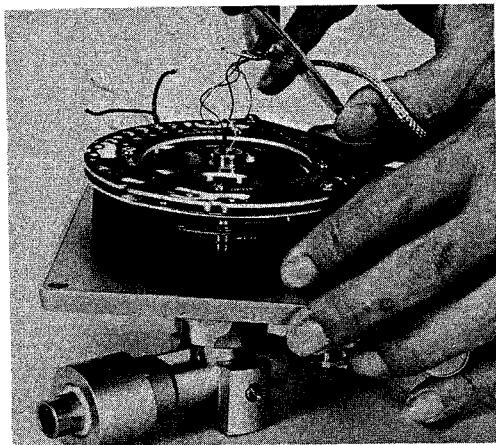


Fig. 14

## 2. Remove the coil circuit board. (Fig. 15)

## 3. Removal of Yoke A (Figs 15 and 16)

Loosen the two yoke set screws with an allen wrench, and remove the yoke as shown below.

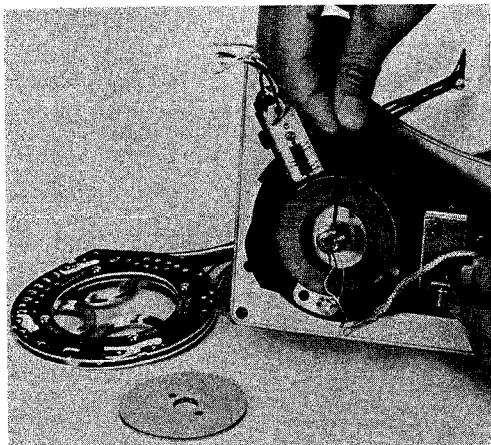


Fig. 15

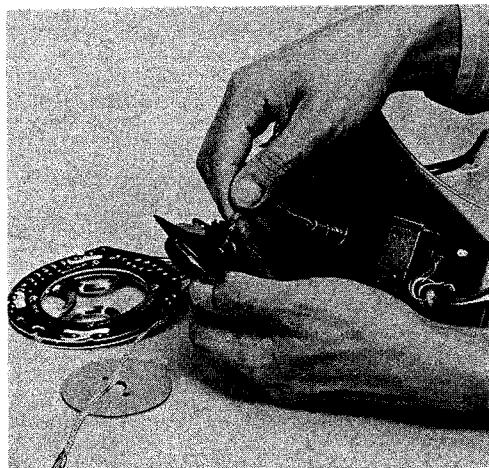


Fig. 16

## 4. Removal of Tonearm (Fig. 17)

Loosen the two set screws of the arm shaft with an Allen wrench, and remove the tonearm as shown below.

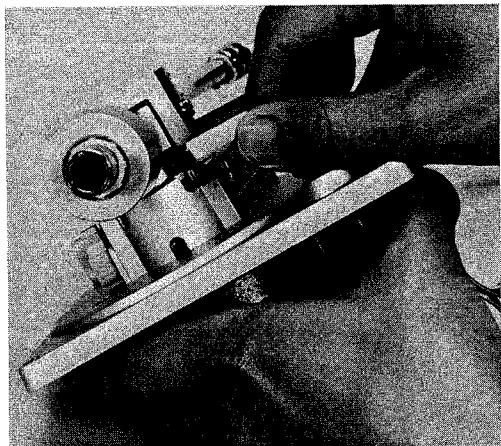


Fig. 17

## 5. Assembly (Fig. 18)

Iron dust adhered to the yokes caused damage to the coils or degradation of the tonearm sensitivity (horizontal action). So, thoroughly remove it with an adhesive agent such as a cellophane tape, etc.

- (1) Position yoke A. (Use a screwdriver for positioning.)
- (2) Adjust the height of yoke A so that the cord plate is located at the center of the lamp house.
- (3) Secure yoke A.
- (4) Position the coil circuit board, and mount yoke B. At this time, be sure to keep the two following points:
  - a) Put a name card on the coil circuit board to protect it.
  - b) Position the yoke surface (with the roundish edge) to the coil side to protect the coil from any damage. (See Fig. 18)

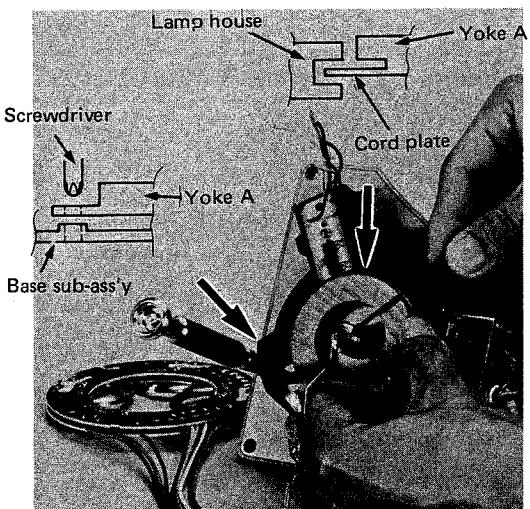
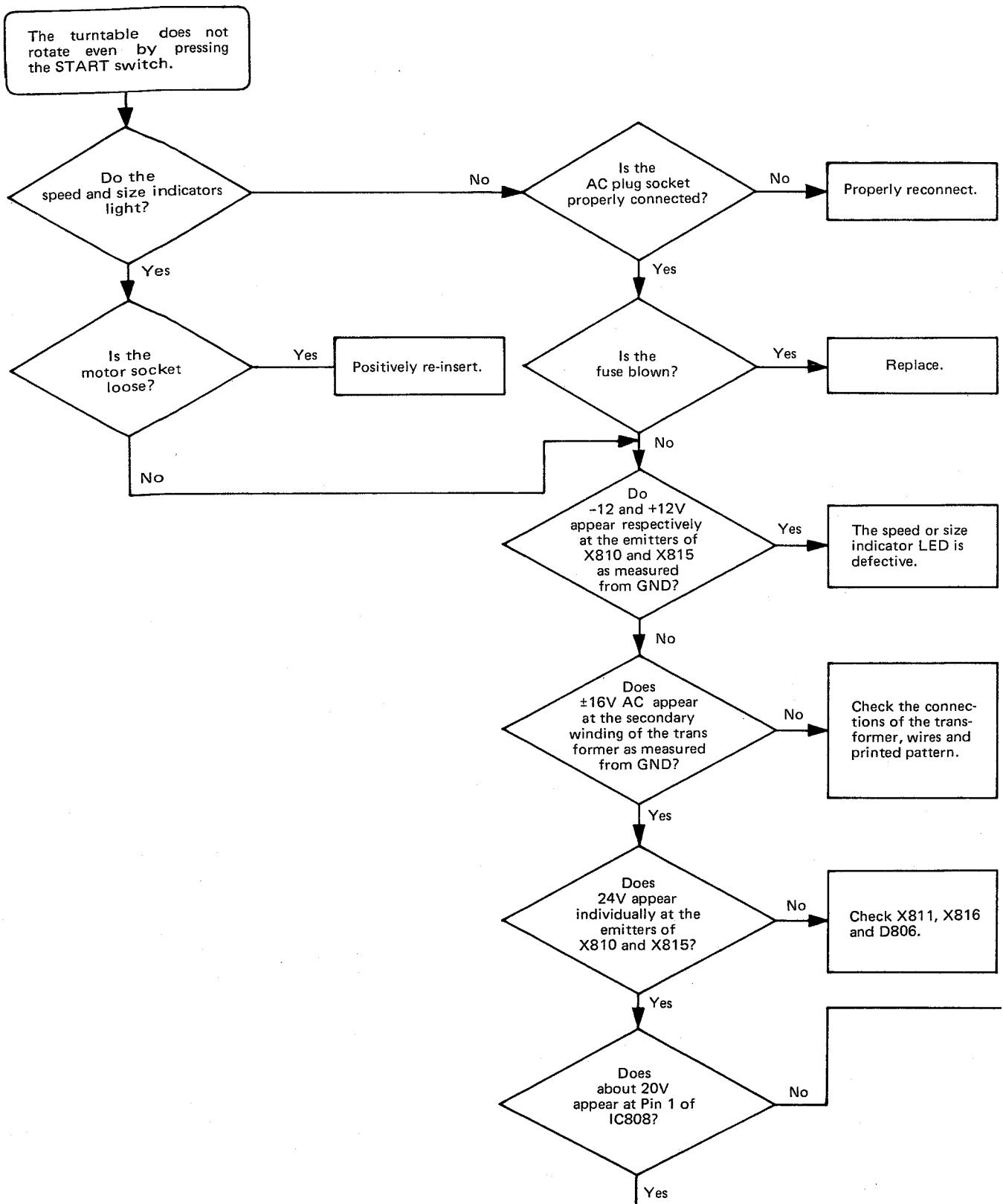


Fig. 18

# 7.Troubleshooting Charts

## 7-(1) The turntable does not rotate



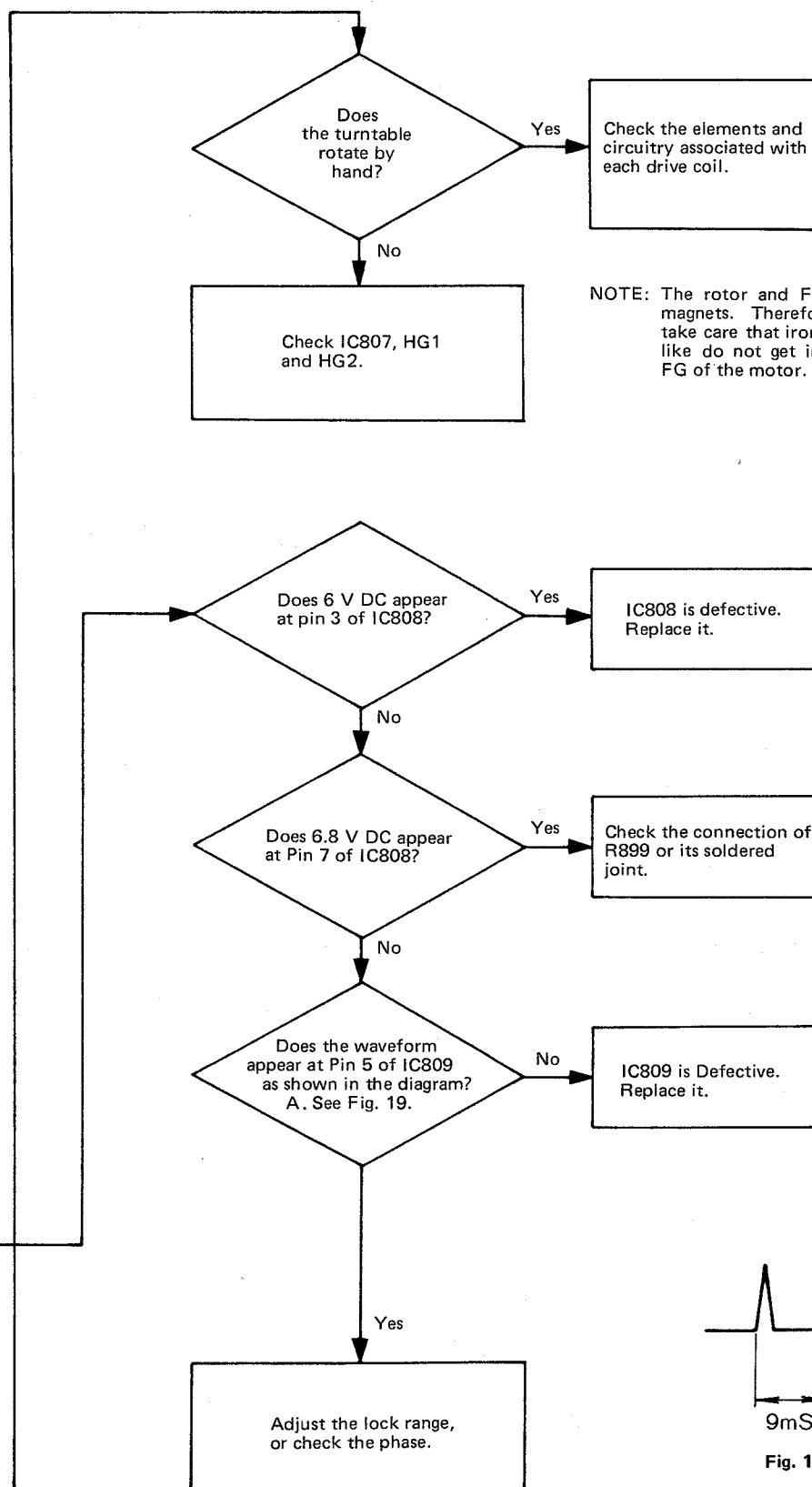
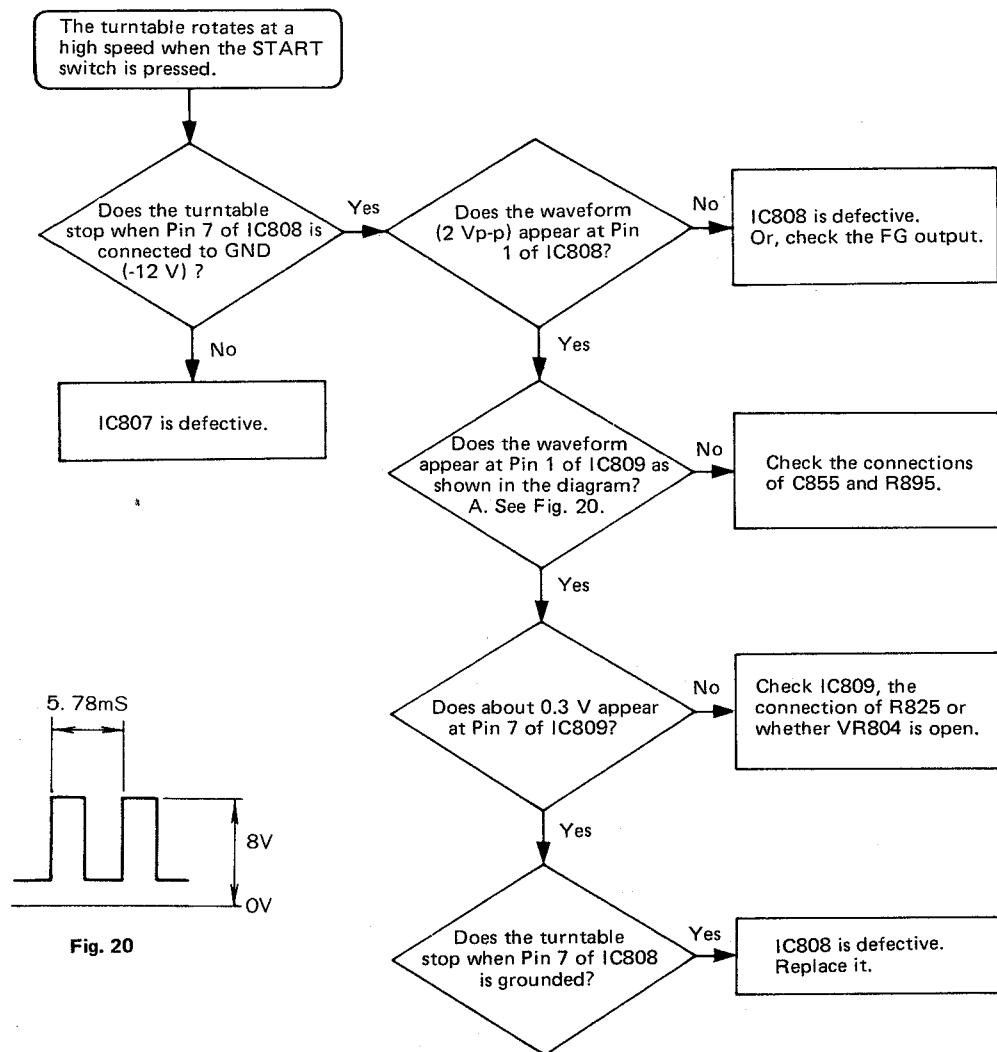
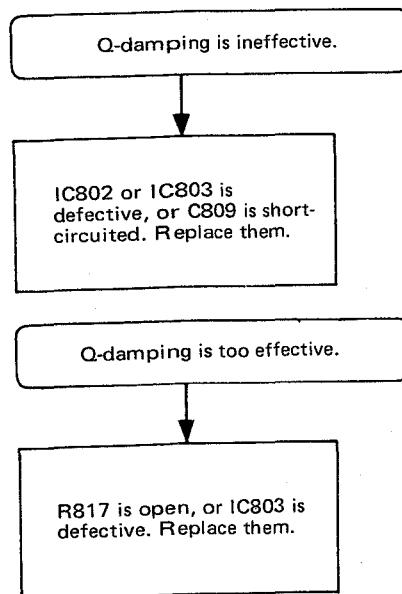
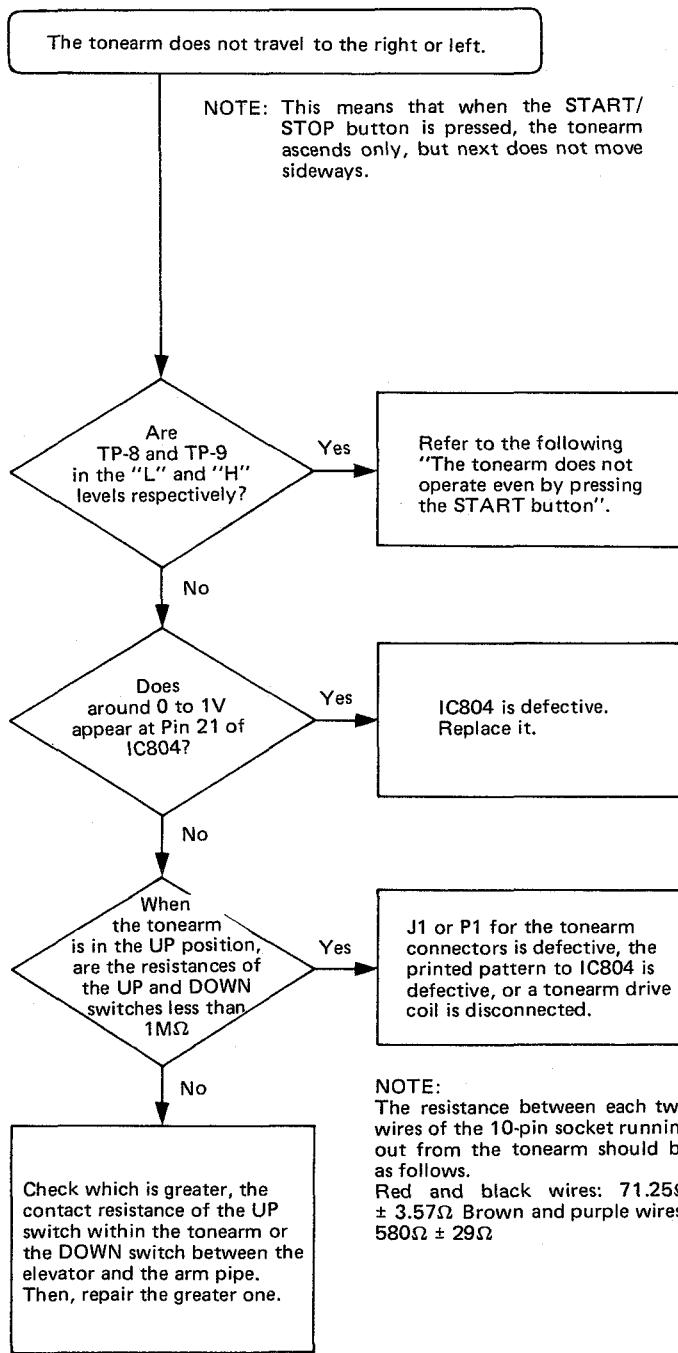
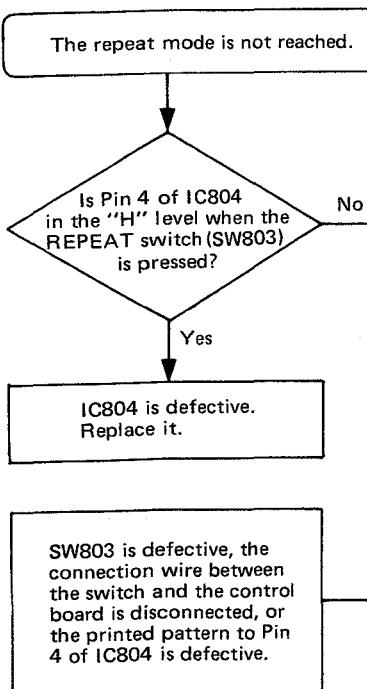
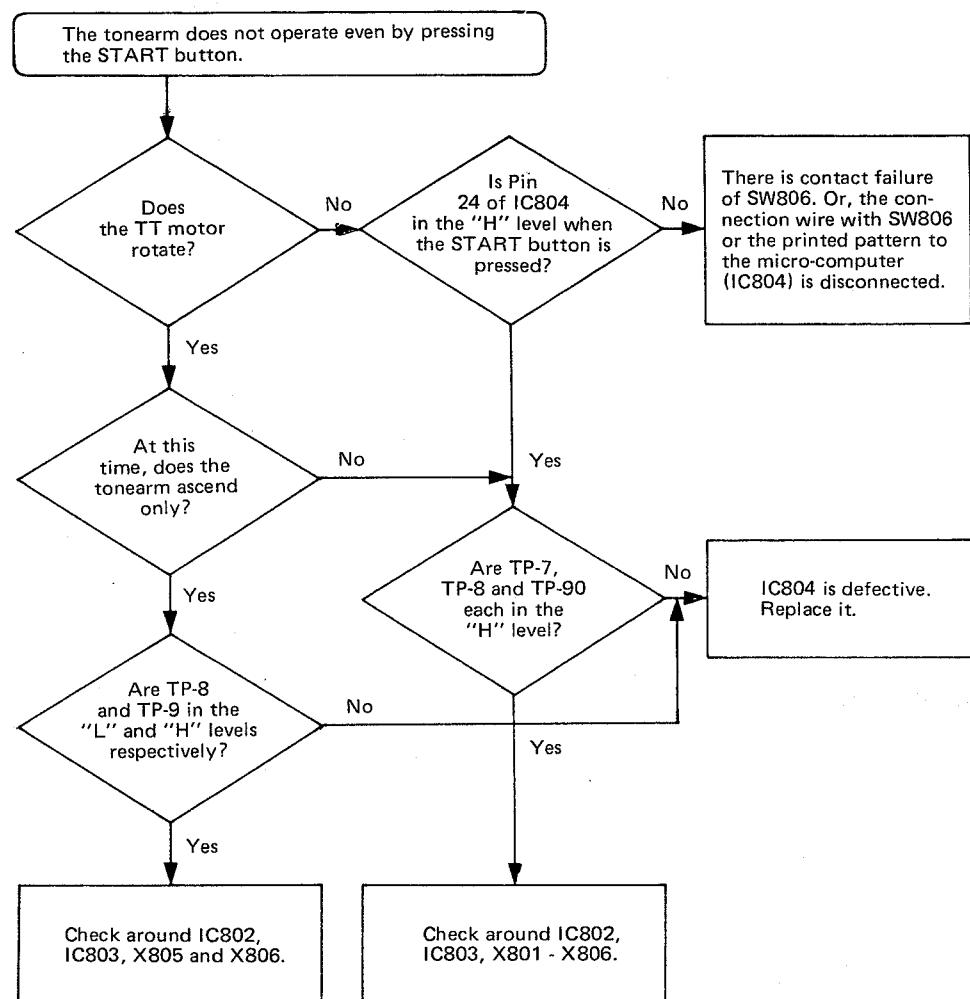


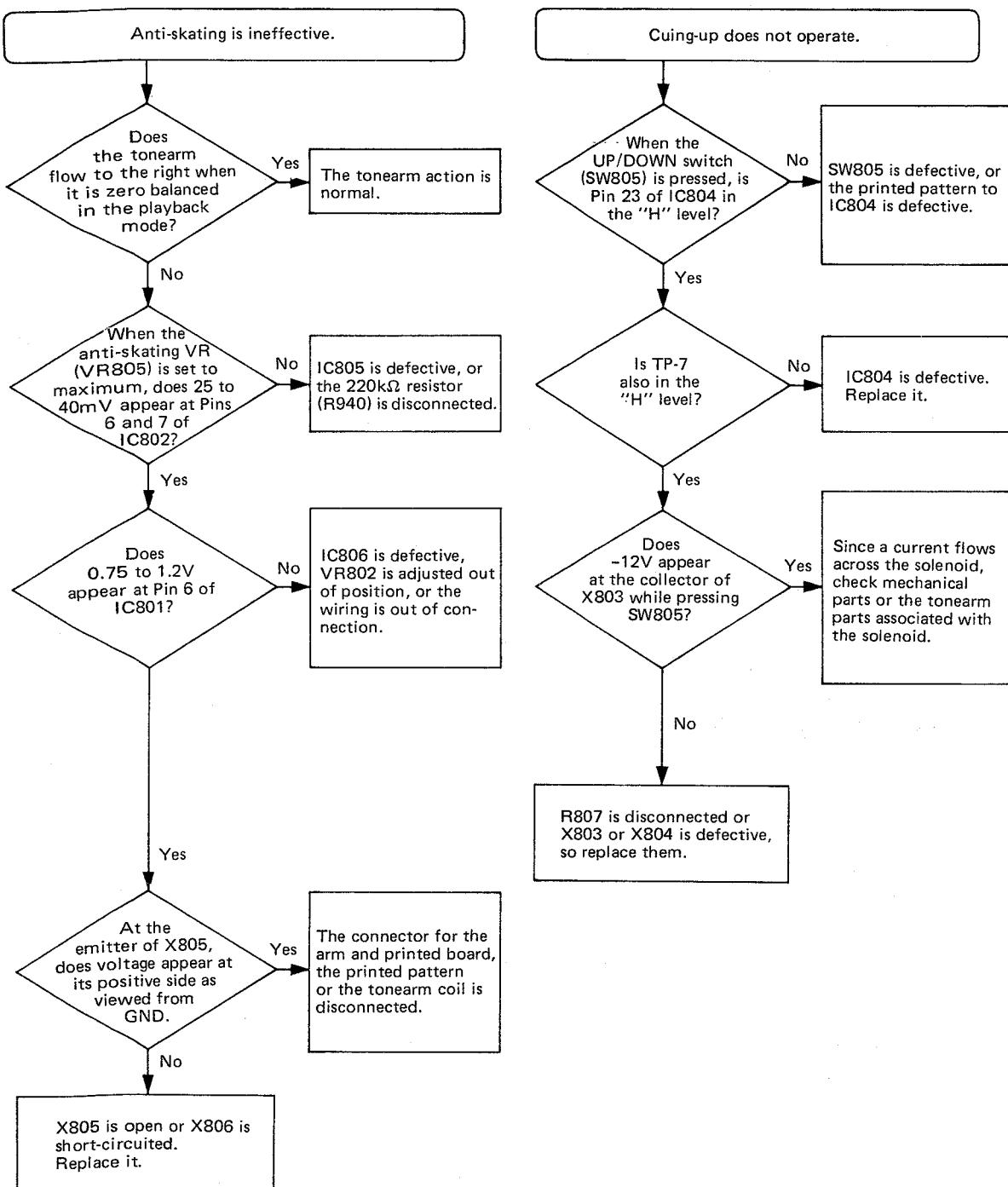
Fig. 19

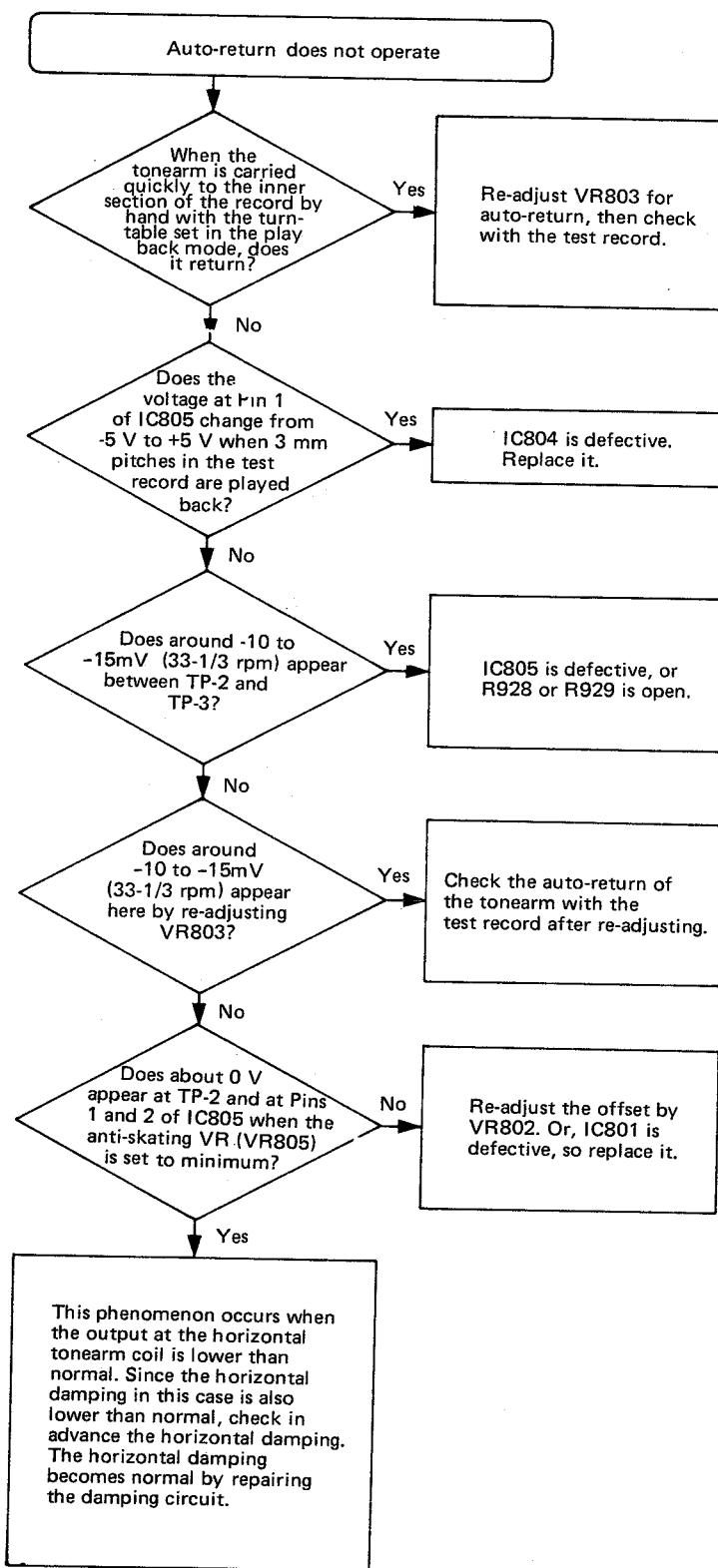
## 7-(2) The turntable rotates at high speed



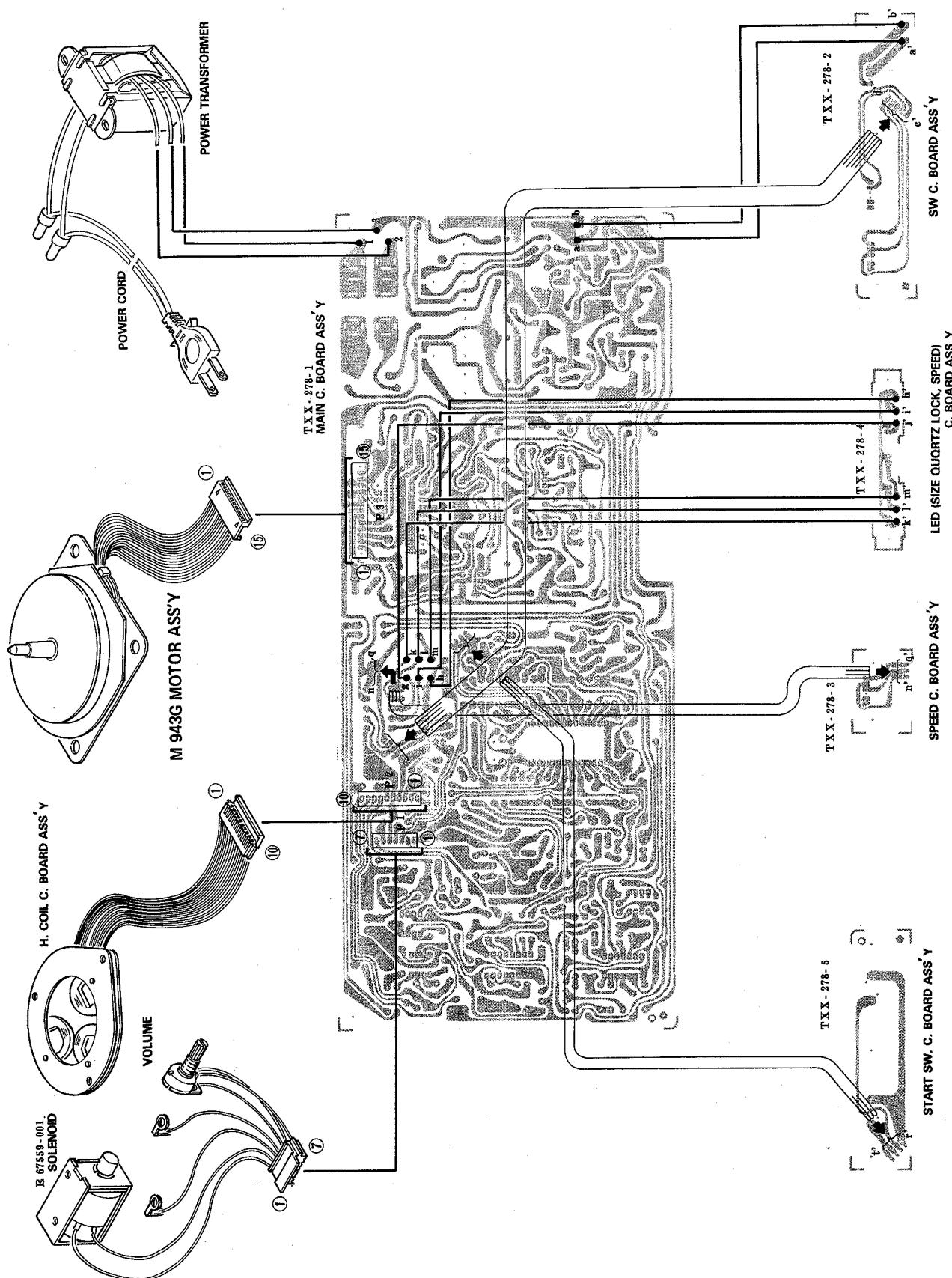
**7-(3) Q-damping is abnormal****7-(5) Tonearm action is abnormal****7-(4) Repeat operation is abnormal**







## 8. Connections Diagram



# 9.Exploded Views and Parts List

## 9-(1) Platter and Cabinet

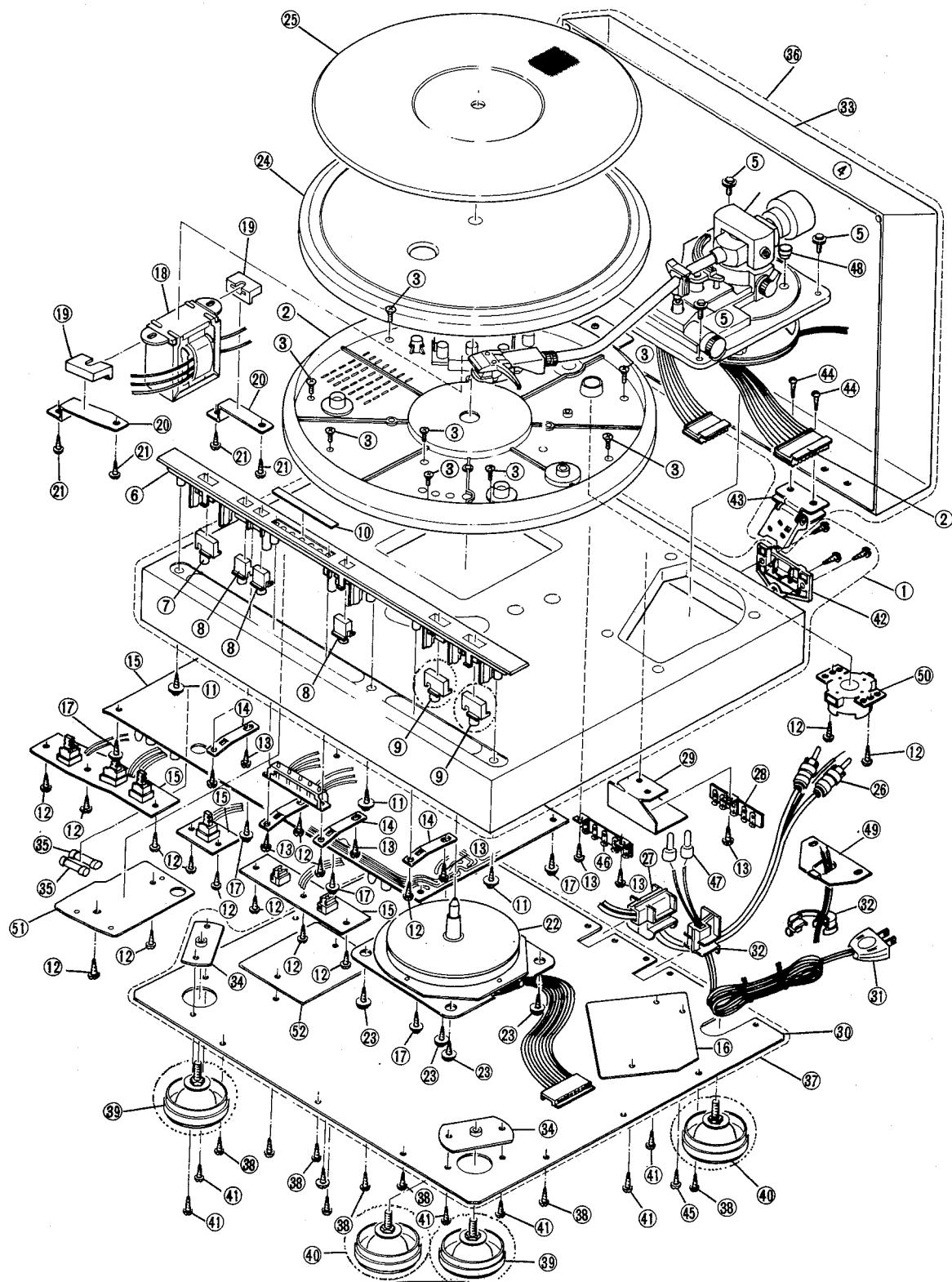


Fig. 22

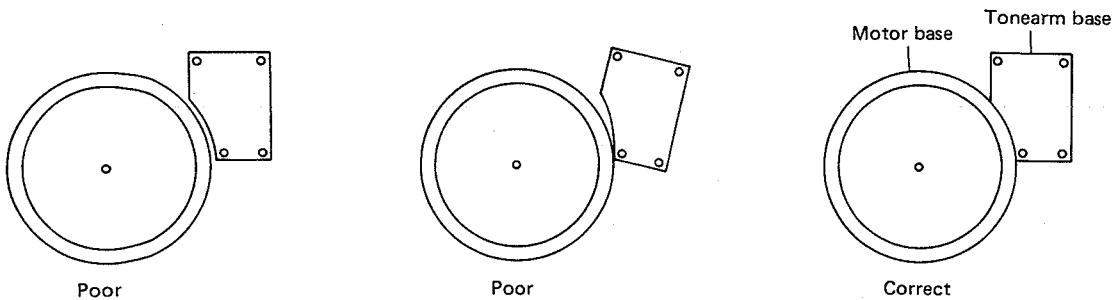


Fig. 23

**Caution:**

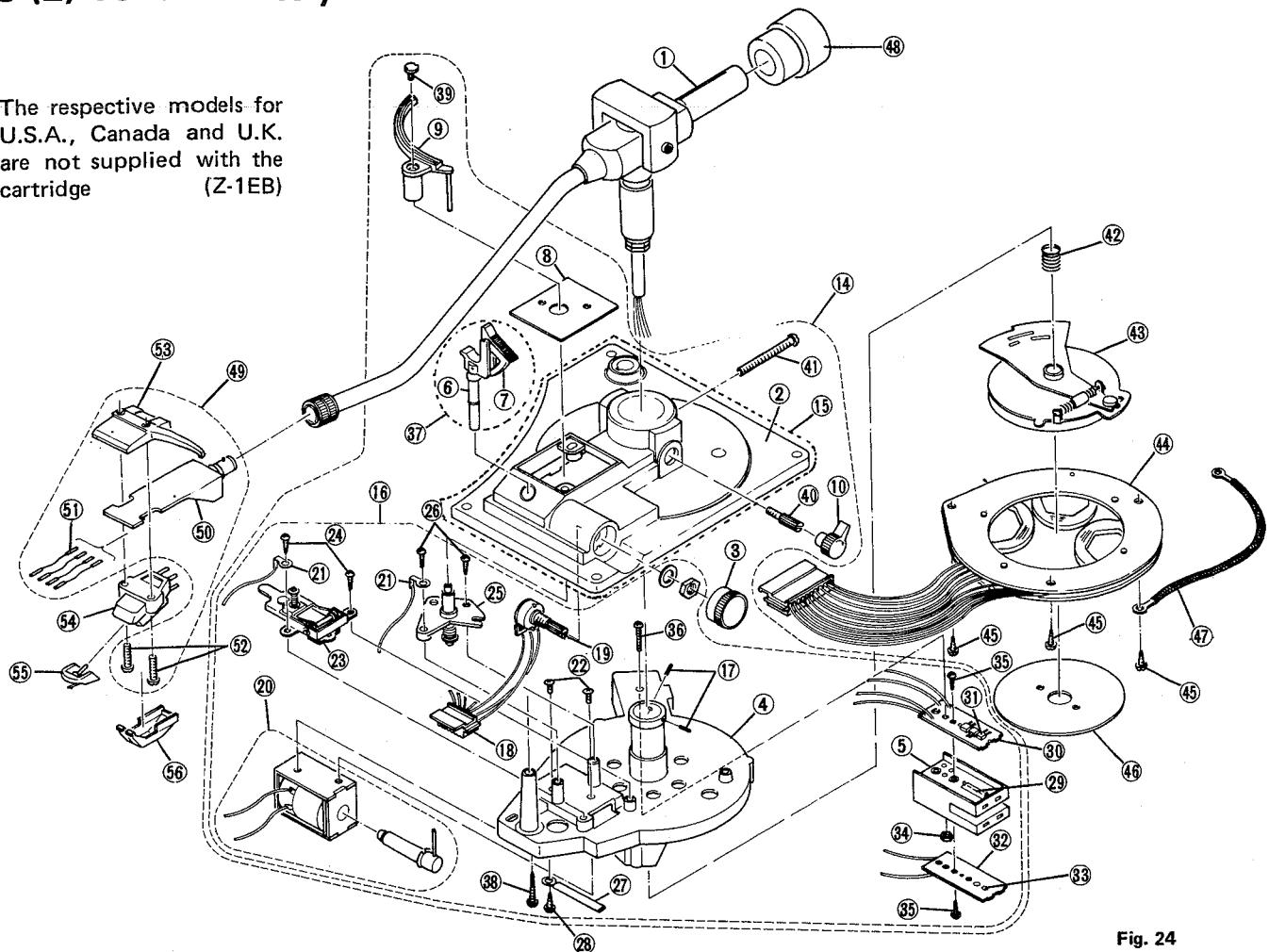
When removing the motor base or tonearm ensure positive contact with the tonearm base as shown in the right, Fig. 23, and then secure.

| Item No. | Part Number           | Rating | Description      |
|----------|-----------------------|--------|------------------|
| 1        | DL-ED92955            |        | Cabinet Ass'y    |
| 2        | E10405-005            |        | Base             |
| 3        | SHSA3014M             |        | Screw            |
| 4        | See page 24, Sect. 14 |        | P.U. Ass'y       |
| 5        | E66892-002            |        | Screw            |
| 6        | E23516-002            |        | Panel            |
| 7        | E300582-003           |        | Push Button      |
| 8        | E300581-002           |        | Push Button      |
| 9        | E300649-005           |        | Button Sub Ass'y |
| 10       | E67463-001            |        | Window Sheet     |
| 11       | E65923-001            |        | T. Screw         |
| 12       | E65921-002            |        | T. Screw         |
| 13       | SBSA3012Z             |        | Screw            |
| 14       | E67464-001            |        | Plate            |
| 15       | See page 24, Sect. 14 |        | C.B. Ass'y       |
| 16       | E67590-001            |        | Shield Plate     |
| 17       | GBSB3008Z             |        | Screw            |
| 18       | See page 24, Sect. 14 |        | Power Trans      |
| 19       | E61824-002            |        | Cushion          |
| 20       | E66885-001            |        | Trans. Plate     |
| 21       | E65921-003            |        | T. Screw         |
| 22       | M-943G                |        | Motor Ass'y      |
| 23       | E65922-005            |        | T. Screw         |
| 24       | E23112-002            |        | T. Table         |
| 25       | E23326-003            |        | T. T. Covering   |

| Item No. | Part Number           | Rating | Description     |
|----------|-----------------------|--------|-----------------|
| 26       | E03724-002            |        | Signal Cord     |
| 27       | A27355                |        | Cord Stopper    |
| 28       | QML0002-051           |        | Lug Strip Ass'y |
| 29       | E60090-004            |        | Shield Cover    |
| 30       | E10406-003            |        | Bottom Cover    |
| 31       | See page 24, Sect. 14 |        | Power Cord      |
| 32       | See page 24, Sect. 14 |        | Cord Stopper    |
| 33       | ED-20946-006          |        | Cover Ass'y     |
| 34       | E67471-001            |        | Foot Plate      |
| 35       | See page 24, Sect. 14 |        | Fuse            |
| 36       | E35263-001            |        | D. Cover Ass'y  |
| 37       | See page 24, Sect. 14 |        | B. Cover Ass'y  |
| 38       | MRSP2713M             |        | Screw           |
| 39       | See page 24, Sect. 14 |        | Foot Ass'y      |
| 40       | See page 24, Sect. 14 |        | Foot Ass'y      |
| 41       | SBSB3008Z             |        | Tapping Screw   |
| 42       | E65588-001            |        | Lock Plate      |
| 43       | E61992-001            |        | Hinge Ass'y     |
| 44       | SDSP3008M             |        | Screw           |
| 45       | E65119-003            |        | Special Screw   |
| 46       | See page 24, Sect. 14 |        | Lug Strip Ass'y |
| 47       | See page 24, Sect. 14 |        | Connector       |
| 48       | See page 24, Sect. 14 |        | Mask Cap        |
| 49       | See page 24, Sect. 14 |        | C.S. Bracket    |
| 50       | See page 24, Sect. 14 |        | V. Selector     |
| 51       | See page 24, Sect. 14 |        | Barrier Plate   |
| 52       | See page 24, Sect. 14 |        | Barrier Plate   |

## **9-(2) Tonearm Ass'y**

The respective models for U.S.A., Canada and U.K. are not supplied with the cartridge (Z-1EB)



**Fig. 24**

| Item No. | Part Number | Rating | Description         |
|----------|-------------|--------|---------------------|
| 1        | E23589-001  |        | Arm Ass'y           |
| 2        | E10529-001  |        | P.U. Base           |
| 3        | E301117-001 |        | A.S. Knob           |
| 4        | E23587-001  |        | Coil Base Sub Ass'y |
| 5        | E300672-001 |        | Lamp House          |
| 6        | E35898-001  |        | Rest                |
| 7        | E35899-001  |        | Rest Clumper        |
| 8        | E67508-001  |        | Plate               |
| 9        | E301118-001 |        | Elevator            |
| 10       | E301124-001 |        | Knob                |
| 11       | E301121-001 |        | Weight Pipe         |
| 12       | E301120-001 |        | Counter Cap         |
| 13       | E23589-001  |        | Arm Ass'y           |
| 14       | E23590-001  |        | P.U. Base Ass'y     |
| 15       | E301186-001 |        | P.U. Base Sub Ass'y |
| 16       | E23588-001  |        | Coil Base Ass'y     |
| 17       | YRS3003MS   |        | Set Screw           |
| 18       | EWS017-024  |        | SKT. Wire Ass'y     |
| 19       | QVK5A6B-014 |        | V. RES.             |
| 20       | E67559-001  |        | Solenoid            |
| 21       | E67560-001  |        | Lug                 |
| 22       | SSBP3005NS  |        | Screw               |
| 23       | E67515-001  |        | Lever Ass'y         |
| 24       | SBSB2606Z   |        | Tapping Screw       |
| 25       | E67517-001  |        | E. Bracket Ass'y    |
| 26       | SBSB3008Z   |        | Tapping Screw       |
| 27       | E50670-005  |        | Wire Clamp          |
| 28       | SBSB3006Z   |        | Tapping Screw       |

| Item No. | Part Number | Rating | Description       |
|----------|-------------|--------|-------------------|
| 29       | E66931-001  |        | Mask              |
| 30       | E66944-001  |        | S.C. Board (A)    |
| 31       | PN150F      |        | TR.               |
| 32       | E66945-001  |        | S.C. Board (B)    |
| 33       | LN25RPCPCLF |        | L.E.D.            |
| 34       | NNB2600     |        | Nut               |
| 35       | SBSB2605Z   |        | Tapping Screw     |
| 36       | SPSP2616Z   |        | Screw             |
| 37       | E65824-001  |        | Rest Ass'y        |
| 38       | E66133-001  |        | Tapping Screw     |
| 39       | E66933-001  |        | Screw             |
| 40       | E67509-001  |        | Screw             |
| 41       | SPSP4050Z   |        | Screw             |
| 42       | E67539-001  |        | Spring            |
| 43       | E301123-001 |        | Yoke (A) Ass'y    |
| 44       | E301122-001 |        | H.C. Board Ass'y  |
| 45       | SBSB3012Z   |        | Tapping Screw     |
| 46       | E67513-001  |        | Yoke (B)          |
| 47       | E67558-001  |        | Shield Tube Ass'y |
| 48       | E67518-001  |        | Main Weight Ass'y |
| 49       | E35991-002  |        | Head Shell Ass'y  |
| 50       | E35990-002  |        | Head Case Ass'y   |
| 51       | E60501-005  |        | Wire Ass'y        |
| 52       | E60502-001  |        | Screw             |
| 53       | E35989-002  |        | Finger            |
| 54       | MD-1025EBZ  |        | Cartridge         |
| 55       | DT-Z1EB     |        | Stylus Ass'y      |
| 56       | E34268-001  |        | Stylus Cover      |

## **10. TXX-278 Printed Circuit Board Ass'y and Parts List**

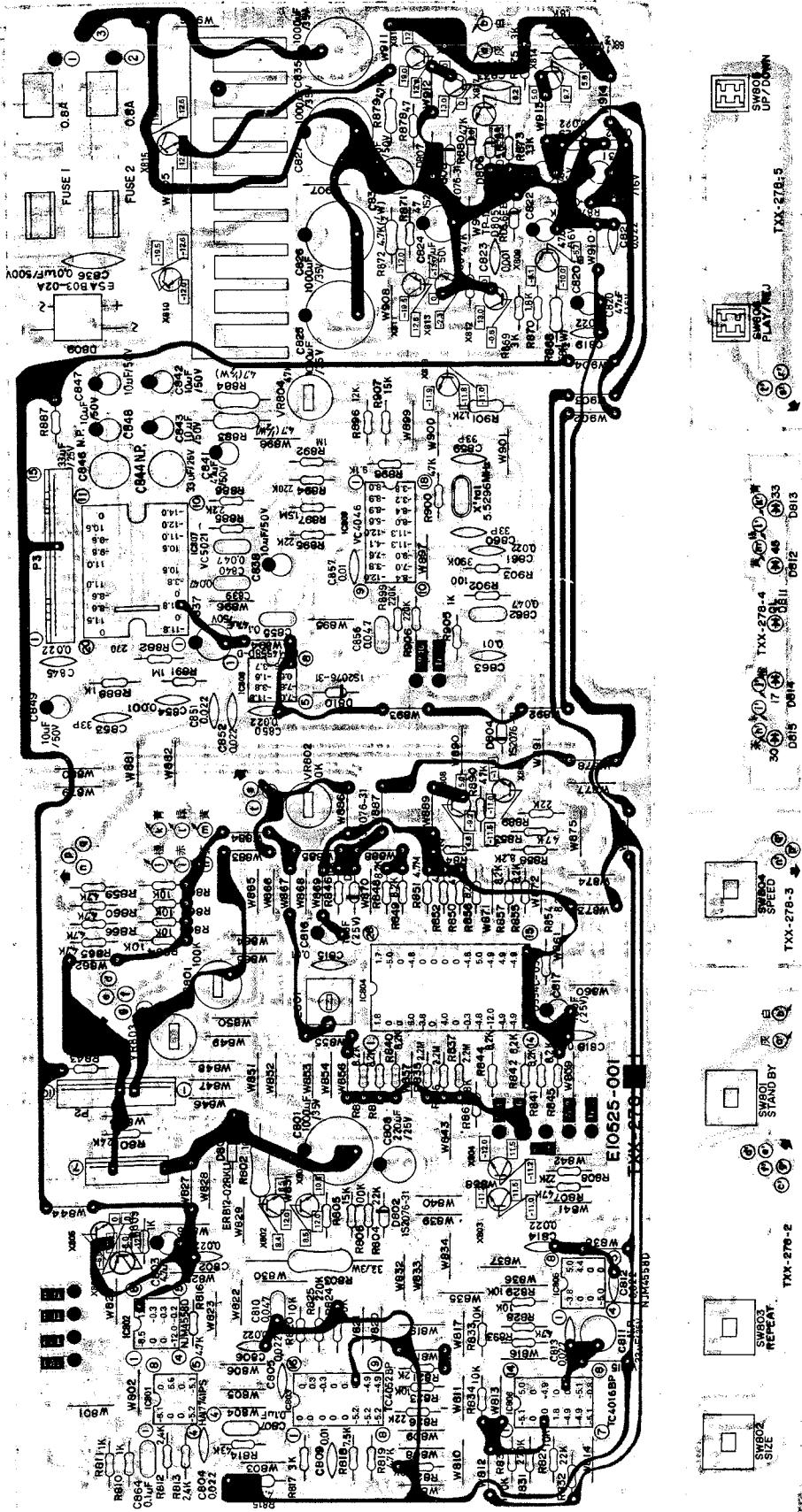


Fig. 25

**Note (2):** The specific symbols ( 番, 黒, 白, . . . etc) on a surface of P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

- ① TXX-278□1 : Quartz Servo Motor Control & Arm Control  
     & Power Supply P.C. Board Ass'y  
 ② TXX-278-2 : Size, Repeat, READY Switches P.C. Board  
     Ass'y  
 ③ TXX-278-3 : Speed Switch P.C. Board Ass'y  
 ④ TXX-278-4 : LED P.C. Board Ass'y  
 ⑤ TXX-278-5 : START/STOP, UP/DOWN Switches P.C.

**Note 1:** In  should be indicated an area code according to the table shown on page 24, section 14 when preparing an order form.

**Transistor**

| Item No.                 | Part No.     | Rating |        | Description |       |
|--------------------------|--------------|--------|--------|-------------|-------|
|                          |              | Pc     | fT     | Maker       |       |
| X801<br>2<br>3<br>4<br>5 | 2SD325(E)    | 10W    | 8MHz   | Silicon     | Sanyo |
|                          | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | NEC   |
|                          | 2SC945A(P,Q) | "      | "      | "           | "     |
|                          | 2SD325(E)    | 10W    | 8MHz   | "           | Sanyo |
|                          | 2SD571(L,K)  | 0.8W   | 110MHz | "           | NEC   |
| 6                        | 2SB605(K,L)  | 0.8W   | 120MHz | "           | "     |
| 7                        | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | "     |
| 8                        | 2SA733A(P,Q) | 0.25W  | 180MHz | "           | "     |
| 9                        | 2SB605(K,L)  | 0.8W   | 120MHz | "           | "     |
| 10                       | 2SB507V(E)   | 30W    | 8MHz   | "           | Sanyo |
| 11                       | 2SB560(E)    | 0.75W  | 100MHz | "           | "     |
| 12                       | 2SA733(P,Q)  | 0.25W  | 180MHz | "           | NEC   |
| 13                       | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | "     |
| 14                       | 2SD571(L,K)  | 0.8W   | 110MHz | "           | "     |
| 15                       | 2SD313V(E)   | 30W    | 8MHz   | "           | Sanyo |
| 16                       | 2SD438(E)    | 0.75W  | 100MHz | "           | NEC   |
| 17                       | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | "     |
| 18                       | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | "     |
| 19                       | 2SC945A(P,Q) | 0.25W  | 250MHz | "           | "     |

**Capacitors**

| Item No. | Part Number  | Rating        |       | Description           |
|----------|--------------|---------------|-------|-----------------------|
| C801     | QET51VR-108H | 1000 $\mu$ F  | 35 V  | Electrolytic          |
| C802     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C803     | QET51HR-475H | 4.7 $\mu$ F   | 50 V  | Electrolytic          |
| C804     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C805     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C806     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C807     | QFM81HK-104  | 0.10 $\mu$ F  | 50 V  | Myler                 |
| C808     | QFT51HR-227H | 22 $\mu$ F    | 50 V  | Electrolytic          |
| C809     | QCF21HP-104  | 0.10 $\mu$ F  | 50 V  | Ceramic               |
| C810     | QFM81HK-473  | 0.047 $\mu$ F | "     | Myler                 |
| C811     | ECEA1EN330S  | 33 $\mu$ F    | 25 V  | Non Pole Electrolytic |
| C812     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C813     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | "                     |
| C814     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | "                     |
| C815     | QCF21HP-103  | 0.010 $\mu$ F | 50 V  | "                     |
| C816     | QET51ER-106H | 10 $\mu$ F    | 25 V  | Electrolytic          |
| C817     | QET51ER-106H | 10 $\mu$ F    | 25 V  | "                     |
| C818     | QCF21HP-103  | 0.010 $\mu$ F | 50 V  | Ceramic               |
| C819     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | "                     |
| C820     | QET51CR-476H | 47 $\mu$ F    | 16 V  | Electrolytic          |
| C821     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C822     | QET51CR-476H | 47 $\mu$ F    | 16V   | Electrolytic          |
| C823     | QCF21HP-102  | 1000 pF       | 50 V  | Ceramic               |
| C824     | QET51HR-476H | 47 $\mu$ F    | "     | Electrolytic          |
| C825     | QET51VR-108H | 1000 $\mu$ F  | 35 V  | "                     |
| C826     | QET51VR-108H | "             | "     | "                     |
| C827     | QFT51VR-108H | "             | "     | "                     |
| C829     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C830     | QET51CR-476H | 47 $\mu$ F    | 16 V  | Electrolytic          |
| C831     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C832     | QET51CR-476H | 47 $\mu$ F    | 16 V  | Electrolytic          |
| C833     | QCF21HP-102H | 1000 pF       | 50 V  | Ceramic               |
| C834     | QET51HR-476H | 47 $\mu$ F    | 50 V  | Electrolytic          |
| C835     | QET51VR-108H | 1000 $\mu$ F  | 35 V  | "                     |
| C836     | QCE22HP-103  | 0.010 $\mu$ F | 500 V | Ceramic               |
| C837     | QET51HR-476H | 47 $\mu$ F    | 50 V  | Electrolytic          |
| C838     | QET51HR-106H | 10 $\mu$ F    | 50 V  | "                     |
| C839     | QFM81HK-473  | 0.047 $\mu$ F | 50 V  | Myler                 |
| C840     | QFM81HK-473  | 0.047 $\mu$ F | 50 V  | "                     |
| C841     | QET51HR-475H | 4.7 $\mu$ F   | 50 V  | Electrolytic          |
| C842     | QET51HR-106H | 10 $\mu$ F    | 50 V  | "                     |
| C843     | QET51HR-106H | 10 $\mu$ F    | 50 V  | "                     |
| C844     | ECEA1EN330S  | 33 $\mu$ F    | 25 V  | Non Pole Electrolytic |
| C845     | QCF21HP-223  | 0.022 $\mu$ F | 50 V  | Ceramic               |
| C846     | ECEA1EN330S  | 33 $\mu$ F    | 25V   | Non Pole              |
| C847     | QET51HR-106H | 10 $\mu$ F    | 50 V  | Electrolytic          |
| C848     | QET51HR-106H | 10 $\mu$ F    | 50 V  | "                     |
| C849     | QET51HR-106H | 10 $\mu$ F    | 50 V  | "                     |
| C850     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | Ceramic               |
| C851     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | "                     |
| C852     | QCC21EM-223  | 0.022 $\mu$ F | 25 V  | "                     |
| C853     | QCT26UJ-330  | 33 pF         | "     | "                     |
| C854     | QCF21HP-102  | 1000 pF       | 50 V  | "                     |
| C855     | QFM81HK-473  | 0.10 $\mu$ F  | "     |                       |
| C856     | QFM81HK-473  | 0.047 $\mu$ F | 50 V  | Myler                 |
| C857     | QCF21HP-103  | 0.010 $\mu$ F | 50 V  | Ceramic               |
| C859     | QCT26UJ-330  | 33 pF         | 50 V  | "                     |
| C860     | QCT26UI-330  | 33 pF         | "     | "                     |
| C861     | QCF21HP-223  | 0.022 $\mu$ F | "     | "                     |
| C862     | QFM81HK-473  | 0.047 $\mu$ F | "     | Myler                 |
| C863     | QCF21HP-103  | 0.010 $\mu$ F | "     | Ceramic               |
| C864     | QFM81HK-104  | 0.1 $\mu$ F   | "     | Myler                 |

**Diodes**

| Item No.                             | Part Number   | Rating | Description |
|--------------------------------------|---|--------|-------------|
| D801<br>D802<br>D803<br>D804<br>D805 | ERB12-O2RKL1<br>1S2076-31<br>1S2076-31<br>1S2076-31<br>RD5,6EB3 |        | Maker       |
|                                      |   |        | Silicon     |
|                                      |   |        | Fuji        |
|                                      |   |        | Hitachi     |
|                                      |   |        | "           |
| D806                                 | RD5,6EB3  |        | (Zener)     |
|                                      |   |        | "           |
|                                      |   |        | NEC         |
| D807<br>D808<br>D809                 | 1S2076-31<br>1S2076-31<br>ESAB03-02A                            |        | (Zener)     |
|                                      |   |        | "           |
|                                      |   |        | Hitachi     |
| D810<br>D811                         | LN321GP<br>LN221RP  |        | LED         |
|                                      |   |        | "           |
|                                      |   |        | Matsu-shita |
| D812<br>D813                         | LN221RP   |        | "           |
|                                      |   |        | "           |
| D814<br>D815                         | LN221RP   |        | "           |
|                                      |   |        | "           |

**Coil**

| Item No. | Part Number | Rating | Description              |
|----------|-------------|--------|--------------------------|
| L801     | E03062-44   |        | OSC Coil (400 kHz ± 10%) |

**Resistors**

| Item No. | Part Number   | Rating |       | Description               |
|----------|---------------|--------|-------|---------------------------|
| R801     | QRD141J-243SY | 24 kΩ  | 1/4 W | Carbon                    |
| R802     | QRG027J-101   | 100 Ω  | 2 W   | Oxide Metal Film Resistor |
| R803     | QRG037J-330   | 33 Ω   | 3 W   | "                         |
| R804     | QRD141J-222SY | 22 kΩ  | 1/4 W | Carbon                    |
| R805     | QRD141J-153SY | 15 kΩ  | 1/4 W | " "                       |
| R806     | QRD141J-104SY | 100 kΩ | "     | "                         |
| R807     | QRD141J-473SY | 47 kΩ  | "     | "                         |
| R808     | QRD141J-153SY | 15 kΩ  | "     | "                         |
| R809     | QRD141J-102SY | 1 kΩ   | "     | "                         |
| R810     | QRD141J-102SY | 1 kΩ   | "     | "                         |
| R811     | QRD141J-102SY | 1 kΩ   | "     | "                         |
| R812     | QRD141J-242SY | 2.4 kΩ | "     | "                         |
| R813     | QRD141J-242SY | 2.4 kΩ | "     | "                         |
| R814     | QRD141J-433SY | 43 kΩ  | "     | "                         |
| R815     | QRD129J-4R7   |        | 1/2 W | "                         |
| R816     | QRD141J-472SY | 4.7 kΩ | 1/4 W | "                         |
| R817     | QRD141J-302SY | 3 kΩ   | "     | "                         |
| R818     | QRD141J-752SY | 7.5 kΩ | "     | "                         |
| R819     | QRD141J-472SY | 4.7 kΩ | "     | "                         |
| R820     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R821     | QRD141J-2D2SY | 2 kΩ   | "     | "                         |
| R822     | QRD141J-202SY | 2 kΩ   | "     | "                         |
| R823     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R824     | QRD141J-223SY | 22 kΩ  | "     | "                         |
| R825     | QRD141J-224SY | 220 kΩ | "     | "                         |
| R826     | QRD141J-224SY | 220 kΩ | "     | "                         |
| R827     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R828     | QRD141J-103SY | "      | "     | "                         |
| R829     | QRD141J-103SY | "      | "     | "                         |
| R830     | QRD141J-104SY | 100 kΩ | "     | "                         |
| R831     | QRD141J-274SY | 270 kΩ | "     | "                         |
| R832     | QRD141J-224SY | 220 kΩ | "     | "                         |
| R833     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R834     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R835     | QRD141J-225SY | 2.2 MΩ | "     | "                         |
| R836     | QRD141J-225SY | 2.2 MΩ | "     | "                         |
| R837     | QRD141J-225Y  | 2.2 MΩ | "     | "                         |
| R838     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R839     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R840     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R841     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R842     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R843     | QRD141J-331SY | 330 Ω  | "     | "                         |
| R844     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R845     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R846     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R847     | QRD141J-223SY | 22 kΩ  | "     | "                         |
| R848     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R849     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R850     | QRD141J-473SY | 47 kΩ  | "     | "                         |
| R851     | QRD141J-475SY | 4.7 MΩ | "     | "                         |
| R852     | QRD141J-475SY | 4.7 MΩ | "     | "                         |
| R853     | QRD141J-473SY | 47 kΩ  | "     | "                         |
| R854     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R855     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R856     | QRD141J-822SY | 8.1 kΩ | "     | "                         |
| R857     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R858     | QRD141J-822SY | 8.2 kΩ | "     | "                         |
| R859     | QRD141J-472SY | 4.7 kΩ | "     | "                         |
| R860     | QRD141J-472SY | 4.7 kΩ | "     | "                         |
| R861     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R862     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R863     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R864     | QRD141J-103SY | 10 kΩ  | "     | "                         |
| R865     | QRD141J-472SY | 4.7 kΩ | "     | "                         |
| R866     | QRD141J-472SY | 4.7 kΩ | "     | "                         |
| R867     | QRD141J-183SY | 18 kΩ  | "     | "                         |
| R868     | QRD129J-680   | 68 Ω   | 1/2 W | OMF                       |
| R869     | QRV144F-3001  | 30 Ω   | 1/4 W | OMF                       |

| Item No. | Part Number   | Rating |       | Description |
|----------|---------------|--------|-------|-------------|
| R870     | QRD141J-182SY | 1.8 kΩ | 1/4 W | Carbon      |
| R871     | QRD-149J-470S | 47 Ω   | "     | "           |
| R872     | QRD129J-472   | 4.7 Ω  | "     | "           |
| R873     | QRV144F-3301  | 3.3kΩ  | 1/4 W | OMF         |
| R874     | QRD129J-680   | 68 Ω   | 1/2 W | Carbon      |
| R875     | QRV144F-3001  | 30 Ω   | 2/4 W | OMF         |
| R876     | QRV144F-3301  | 33 Ω   | 1/4 W | OMF         |
| R877     | QRD141J-182SY | 1.8 kΩ | 1/4 W | Carbon      |
| C878     | QRD149J-470S  | 47 Ω   | 1/4 W | "           |
| R879     | QRD129J-472   | 4.7 kΩ | 1/2 W | "           |
| R880     | QRD141J-473SY | 47 kΩ  | 1/4 W | "           |
| R881     | QRD141J-473SY | 47 kΩ  | "     | "           |
| R882     | QRD141J-271SY | 270 Ω  | "     | "           |
| R883     | QRD129J-4R7   | 4.7 Ω  | 1/2 W | "           |
| R884     | QRD129J-4R7   | 4.7 Ω  | "     | "           |
| R885     | QRD141J-222SY | 2.2 kΩ | 1/4 W | "           |
| R886     | QRD141J-273SY | 27 kΩ  | "     | "           |
| R887     | QRD141J-272SY | 2.7 kΩ | "     | "           |
| R888     | QRD141J-102SY | 1 kΩ   | "     | "           |
| R889     | QRD141J-223SY | 22 kΩ  | "     | "           |
| R890     | QRD141J-473SY | 47 kΩ  | "     | "           |
| R891     | QRD141J-105SY | 1 MΩ   | "     | "           |
| R892     | QRD141J-105SY | 1 MΩ   | "     | "           |
| R893     | QRD141J-102SY | 1 kΩ   | "     | "           |
| R894     | QRD141J-224SY | 220 kΩ | "     | "           |
| R895     | QRD141J-223SY | 22 kΩ  | "     | "           |
| R896     | QRD141J-123SY | 12 kΩ  | "     | "           |
| R897     | QRD141J-155SY | 1.5 MΩ | "     | "           |
| R898     | QRD141J-912SY | 9.1 kΩ | "     | "           |
| R899     | QRD141J-224SY | 220 kΩ | "     | "           |
| R900     | QRD141J-473SY | 47 kΩ  | "     | "           |
| R901     | QRD141J-122S  | 1.2 kΩ | "     | "           |
| R902     | QRD141J-101SY | 100 Ω  | "     | "           |
| R903     | QRD141J-293SY | 390 Ω  | "     | "           |
| R904     | QRD141J-102SY | 1 kΩ   | "     | "           |
| R905     | QRD141J-224SY | 220 kΩ | "     | "           |
| R906     | QRD141J-153SY | 15 kΩ  | "     | "           |
| R907     | QRD141J-153SY | 15 kΩ  | "     | "           |

**Resistors**

| Item No. | Part Number | Rating    | Description |
|----------|-------------|-----------|-------------|
| VR801    | QVP4A0B-104 | 100 k (B) | Carbon      |
| VR802    | QVZ3501-103 | 10 k (B)  | Cermet      |
| VR803    | QVP4A0B-102 | 1 k (B)   | Carbon      |
| VR804    | QVZ3501-473 | 47 k (B)  | Cermet      |

**Others**

| Item No. | Part Number | Rating | Description          |
|----------|-------------|--------|----------------------|
| SW801    | QSP0410-001 |        | Push SW (Size)       |
| SW802    | QSP0410-001 |        | (STAND BY)           |
| SW803    | QSP0410-001 |        | (REPEAT)             |
| SM804    | QSP0410-001 |        | "                    |
| SM805    | ESP0001-001 |        | (SPEED) Switch       |
| SM806    | ESP0001-001 |        | (PLAY/REJ) (UP/DOWN) |

# 11. Packing Materials and Part Numbers

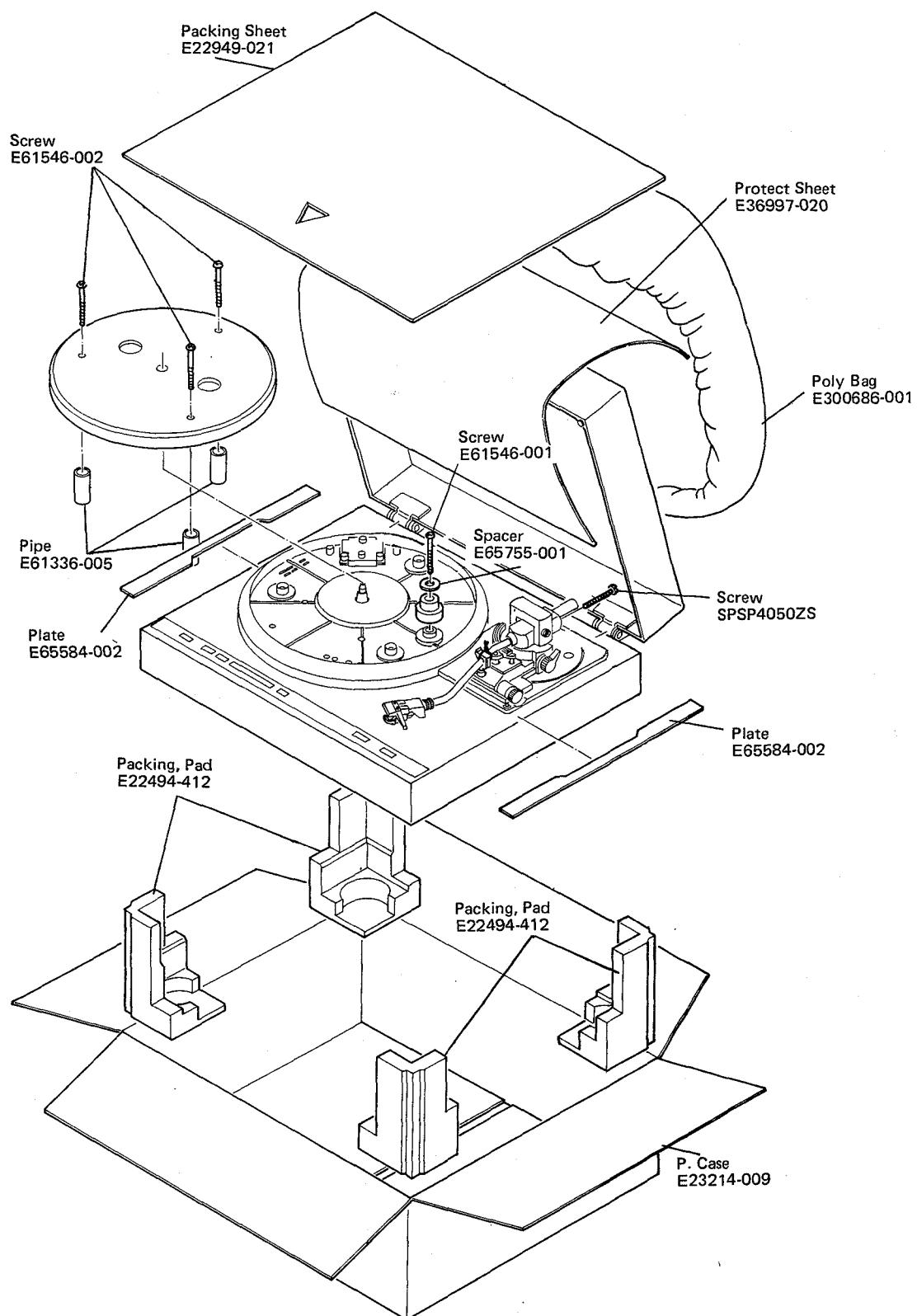
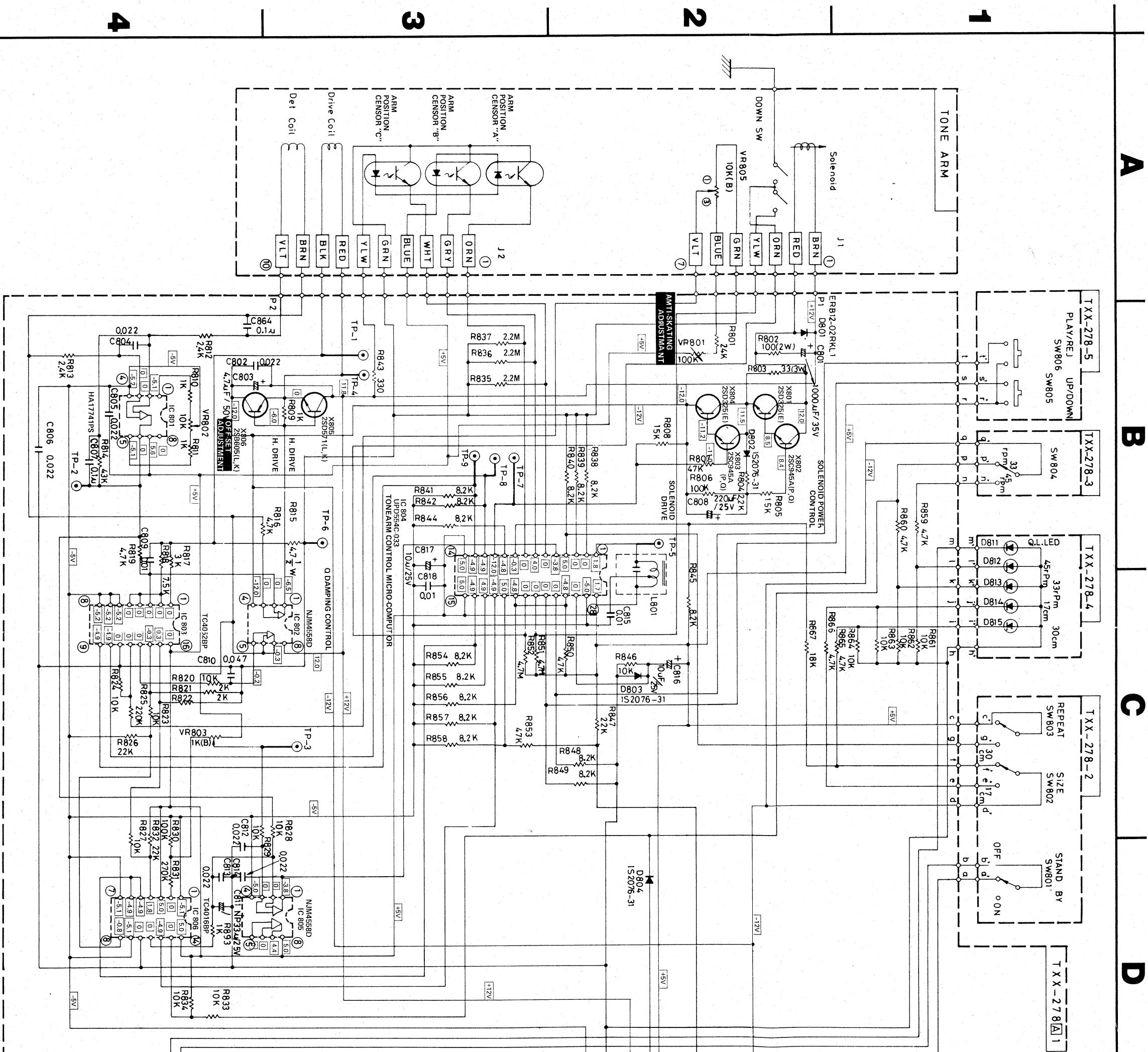
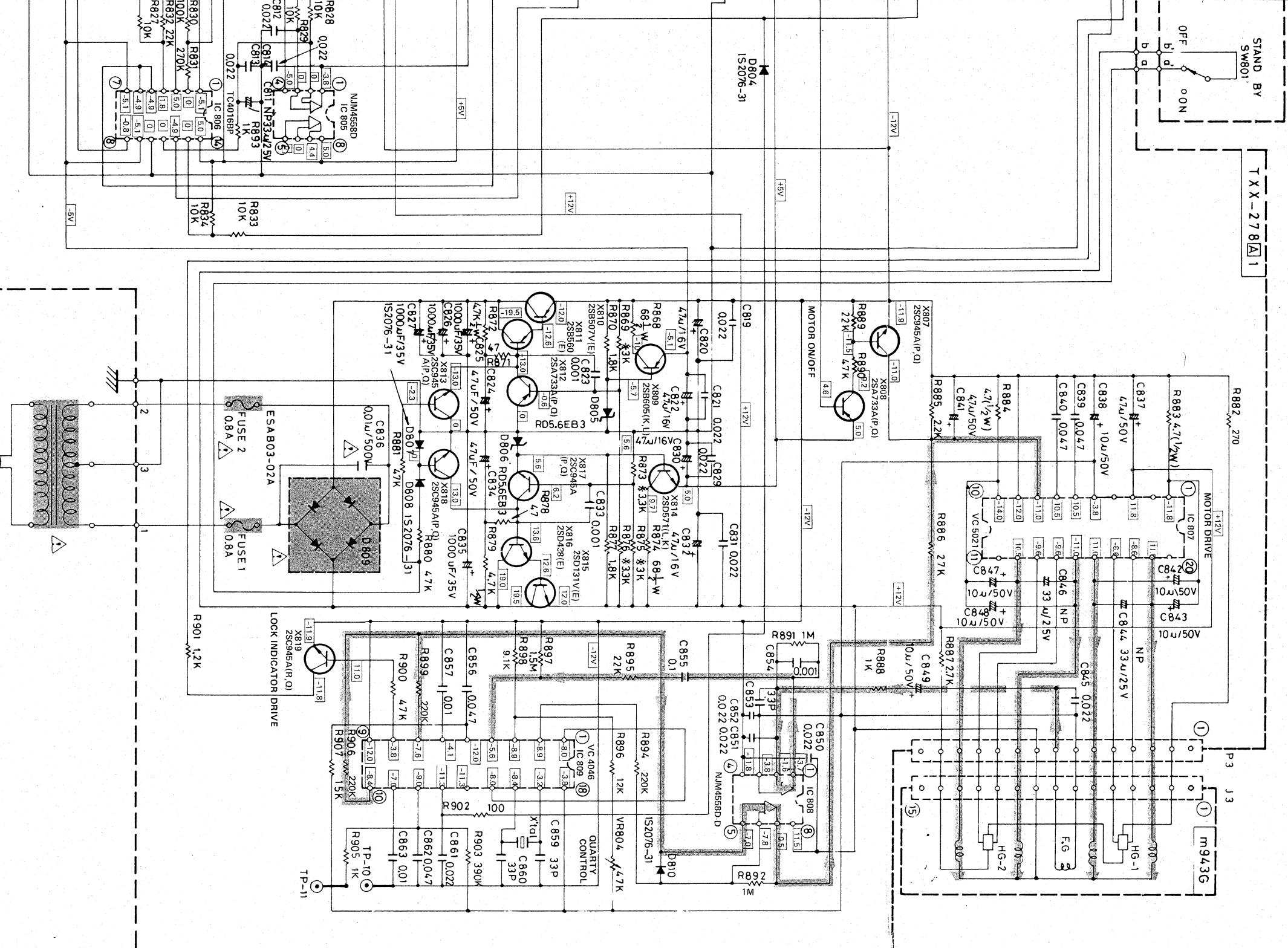


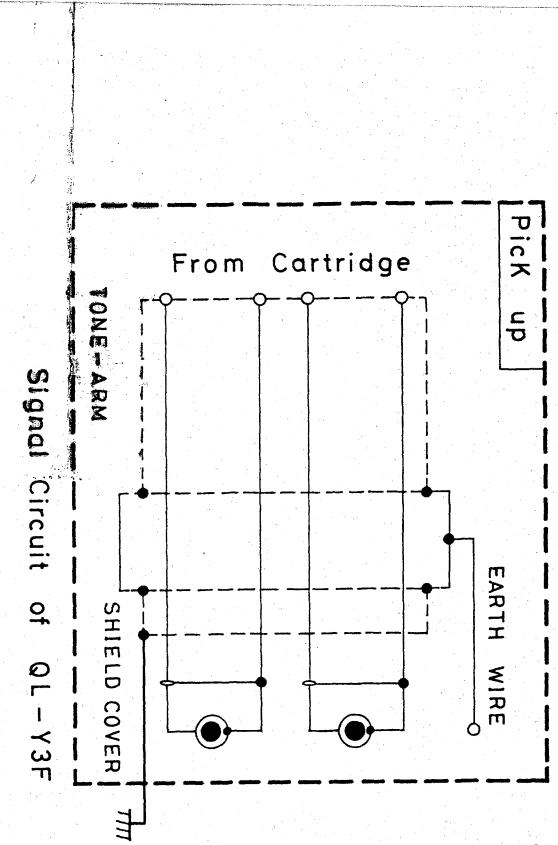
Fig. 27

# 12. QL-Y3F Schematic Diagram

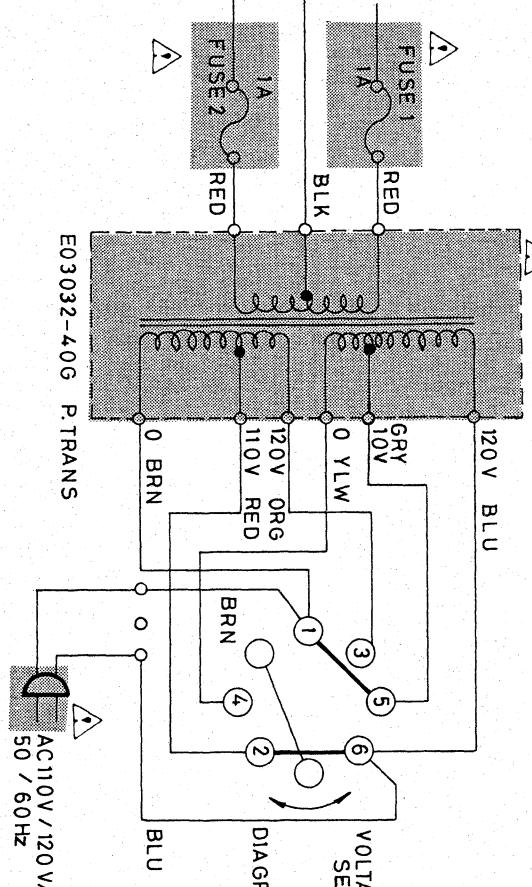


D





P & U (for Pacex & Other areas )



| VOLT       | 110 V   | 120 V   | 240 V | 220 V |
|------------|---------|---------|-------|-------|
| CONNECTION | 1-5,2-6 | 3-6,1-4 | 3 - 4 | 2 - 5 |

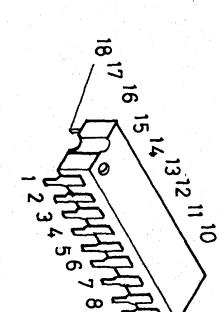
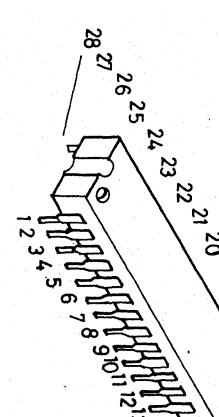
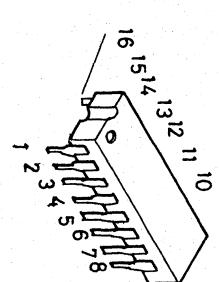
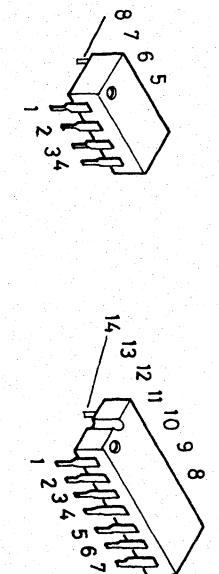
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NJM4558D  
NUM4558-D-D

TC4016BP

TC4052BP

UPD554C-033

VC4046



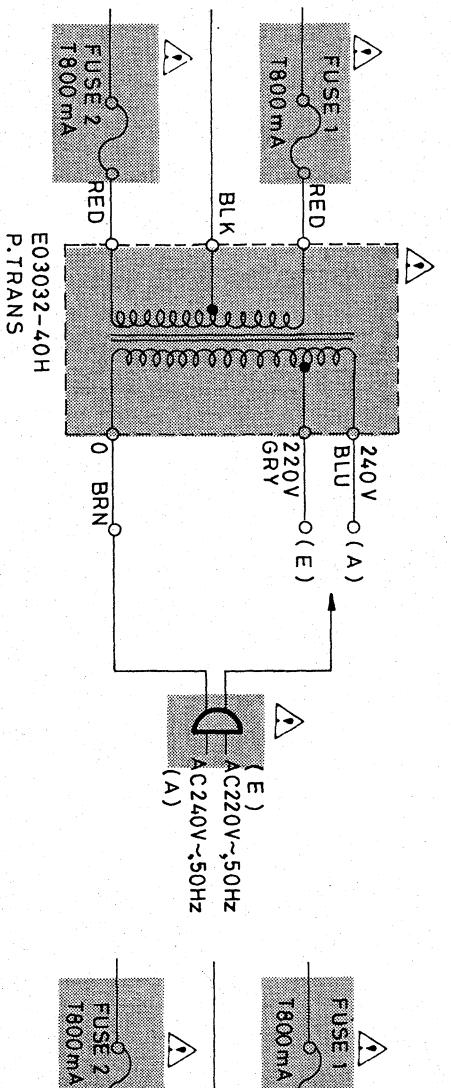
IC801 , IC802  
IC805 , IC806

IC803

IC804

IC809

E & A (for Europe & Australia)



2SD438(E)

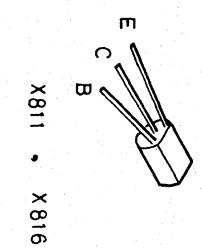
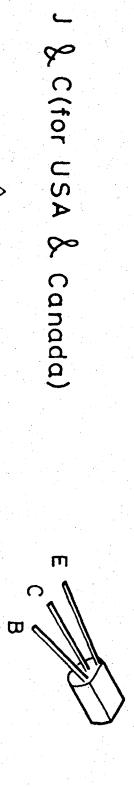
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2SD325(E)

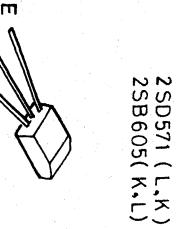
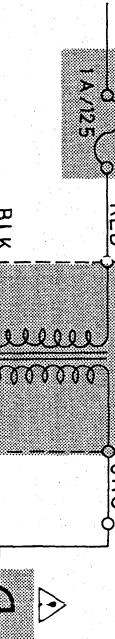
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2SD313V(E)

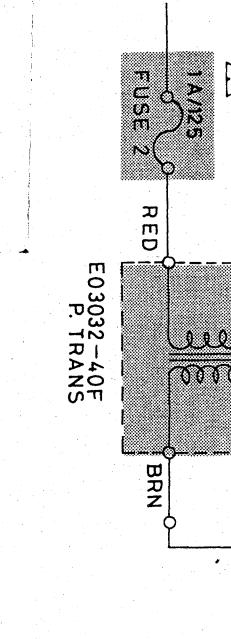
2SB507V(E)



X801, X804  
X810, X815



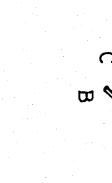
X809, X814  
X805, X806



E03032-40F  
P. TRANS

ZSC945A(P,Q)  
2SA733A(P,Q)

CATHODE A NODE  
E, C



X838, X839, X840

X802, X803  
X807, X808  
X812, X813  
X817 ~ X819

LN221RP, LN321GP

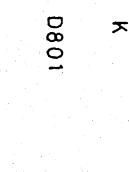
D812~D815, D811

ERB12-02RKL1  
AC240V~, 50Hz



LIVE, BRN  
NEUTRAL, BLU

E03032-40H  
P. TRANS



D801

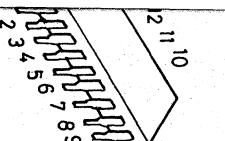
ESAB03-02A

IS2076-31

RD5,6EB3

VC 5021

4046



D809

D802 ~ D804  
D807, D808  
D810

IC807

9

## 13. Accessories List

| No. | Part Number | Description   | Q'ty |
|-----|-------------|---|------|
| 1   | E30580-854A | Instruction Book  | 1    |
| 2   | See below   | Warranty Card   | 1    |
| 3   | BT20042     | "Does it better" (for U.S.A. & U.S. Military Market only) | 1    |
| 4   | E41202-2    | Envelope  | 1    |
| 5   | E66329-001  | EP Adapter  | 1    |
| 6   | EO4056      | Siemens Plug (for other areas only)                       | 1    |

## 14. Parts List with Specified Numbers for Designated Areas

| Page | Item No. | Description                | U.S.A.      | Canada      | Europe       | U.K.           | Australia    | U.S. Military Market and Other Countries |
|------|----------|----------------------------|-------------|-------------|--------------|----------------|--------------|--|
| 16   | 4        | Tonearm Ass'y              | ARM-536     | ARM-536     | MP-316S      | ARM-536        | MP-316S      | MP-316S                                  |
| 16   | 15       | P.C. Board Ass'y           | TX2-278B    | TX2-278B    | TX2-278C     | TX2-278C       | TX2-278C     | TX2-278A                                 |
| 16   | 18       | Power Transformer $\Delta$ | E03032-40F  | E03032-40F  | E03032-40H   | E03032-40HBS   | E03032-40H   | E03032-40G                               |
| 16   | 31       | Power Cord $\Delta$        | QMP1200-200 | QMP1200-200 | QMP3900-200  | QMP9017-008BS  | QMP2560-244  | QMP7600-250                              |
| 16   | 32       | Cord Clamp                 | QHS3876-162 | QHS3876-162 | A37897       | A37897BS       | A37897       | A37897                                   |
| 16   | 49       | C.S. Bracket               | E65431-002  | —           | —            | —              | —            | —  |
| 16   | 50       | Voltage Selector $\Delta$  | —           | —           | QMF51A2-R80L | QMF51A2-R80LBS | QMF51A2-R80L | QSR0085-001U                             |
| 16   | 35       | Fuse $\Delta$              | QMF61U1-1R0 | QMF61U1-1R0 | QMF51A2-R80L | QMF51A2-R80LBS | QMF51A2-R80L | QMF61U1-1R0                              |
| 16   | 51       | Barrier Plate              | E67308-001  | —           | —            | —              | —            | —  |
| 16   | 39       | Foot Ass'y                 | E300666-006 | E300666-006 | E300666-005  | E300666-005    | E300666-005  | E300666-005                              |
| 16   | 46       | Lug Strip Ass'y $\Delta$   | —           | —           | QML1810-054  | QML1810-054BS  | QML1810-054  | QML1810-054                              |
| 16   | 48       | Mask Cap                   | E65395-002  | E65395-002  | —            | —              | —            | —  |
| 21   | —        | Fuse Clip                  | E45524-002  | E45524-002  | E48965-002   | E48965-002     | E48965-002   | E45524-002                               |
| 24   | —        | Warranty Card              | BT20032B    | BT20025C    | —            | BT20013C       | BT20029B     | BT20032B<br>(U.S. Military Market only)  |
| 16   | 37       | Bottom Cover Ass'y         | E10547-005  | E10547-004  | E10547-004   | E10547-004     | E10547-004   | E10547-004                               |
| 16   | 47       | Connector $\Delta$         | E03830-001  | E03830-001  | —            | —              | —            | —  |
| 40   | —        | Foot Ass'y                 | E300666-004 | E300666-003 | E300666-003  | E300666-003    | E300666-003  | E300666-003                              |
| 52   | —        | Barrier Plate              | E67589-001  | —           | —            | —              | —            | —  |

$\Delta$  : Safety parts

### Power Specifications

| Countries            | Line Voltage & Frequency                      | Power Consumption |
|----------------------|---|-------------------|
| U.S.A. & CANADA      | AC 120 V~, 60 Hz                              | 16 Watts          |
| CONTINENTAL EUROPE   | AC 220 V~, 50 Hz                              | "                 |
| U.K. & AUSTRALIA     | AC 240 V~, 50 Hz                              | "                 |
| U.S. MILITARY MARKET | AC 110/120/220/240 V~<br>Selectable, 50/60 Hz | "                 |
| OTHER AREAS          | AC 110/120/220/240 V~<br>Selectable, 50/60 Hz | "                 |

# JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN

 Printed in  
— 5506 —

161  
**JVC**

MODEL **QL-Y3F**  
QUARTS FULLY AUTOMATIC TURNTABLE

# **SERVICE MANUAL**

## **SUPPLEMENT**

No. 2521-2 DEC. 1980

This Service Manual provides you with information on changes of the voltage of checking point in accordance with circuit alteration in the QL-Y3F made for improved performance, precautions for servicing, and checking methods. You may also refer to QL-Y3F original Service Manual No. 2521.

## **Location of changes in original Service Manual**

| Page | Item No. | Description                              |
|------|----------|--|
| 3    | 4-(1)    | Electro-dynamic Servo Control Tonearm    |
| 5    | 5-(4)    | Lead-out Adjustment                      |
| 5    | 5-(7)    | Quarts Oscillation Wave Phase Adjustment |
| 7, 8 | 7-(1)    | The turntable does not rotate            |
| 9    | 7-(2)    | The turntable rotates at high speed      |
| 10   | 7-(3)    | Q-damping is abnormal                    |
| "    | 7-(4)    | Repeat operation is abnormal             |
| "    | 7-(5)    | Tonearm action is abnormal               |
| 11   | "        | "  |
| 12   | "        | "  |
| 13   | "        | "  |

161

# 1. New Technology

## 1-(1) Electro-dynamic Servo Control Tonearm

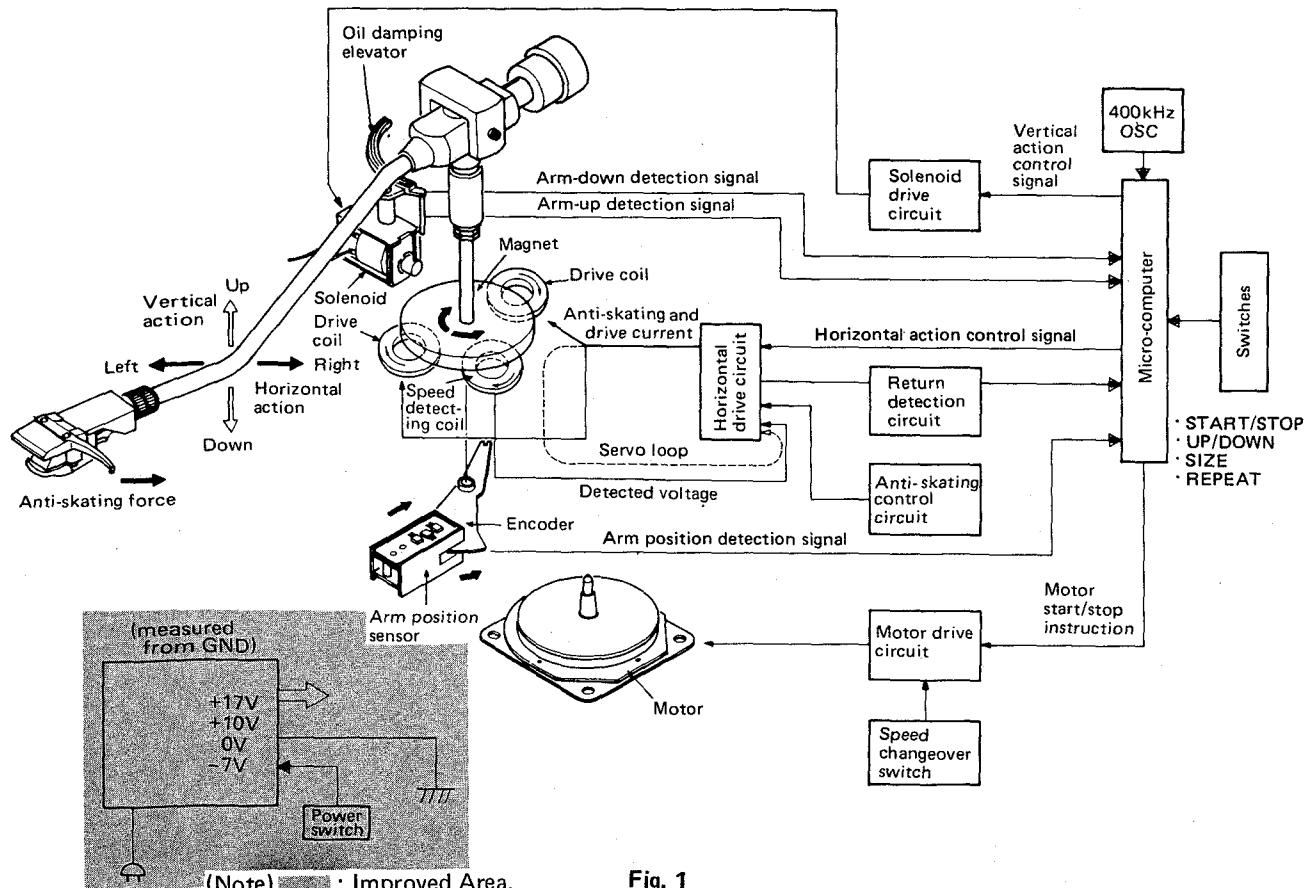


Fig. 1

# 2. Adjustment Procedures

## 2-(1) Lead-out Adjustment

1. Adjust VR803 so that the tonearm returns at the 3mm pitch point of the test record (8602-44) and does not return at the 0.5mm pitch point of the test record (8602-45).

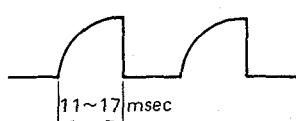
When the tonearm does not return at the 3mm pitch point of the test record (8602-44), adjust the voltage between TP-2 and TP-3 so that it is closer to 0V by about 20% than the set voltage.

When the tonearm returns at the 0.5mm pitch point of the test record (8602-45), adjust the said voltage so that it is closer to 0V by about 20% in absolute value than the set voltage.

## 2-(2) Quartz Oscillation Wave Phase Adjustment

1. Set RPM to 33-1/3.
2. Observe the wave duration (T) from leading to trailing edges, and adjust the duration to 11 ~ 17 msec with VR804.

Waveform on oscilloscope



(Note) █ : Improved Area.

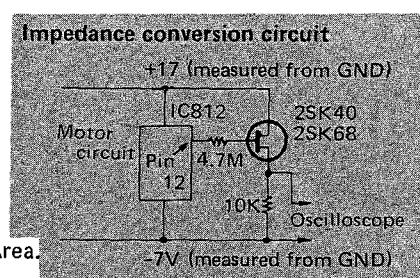
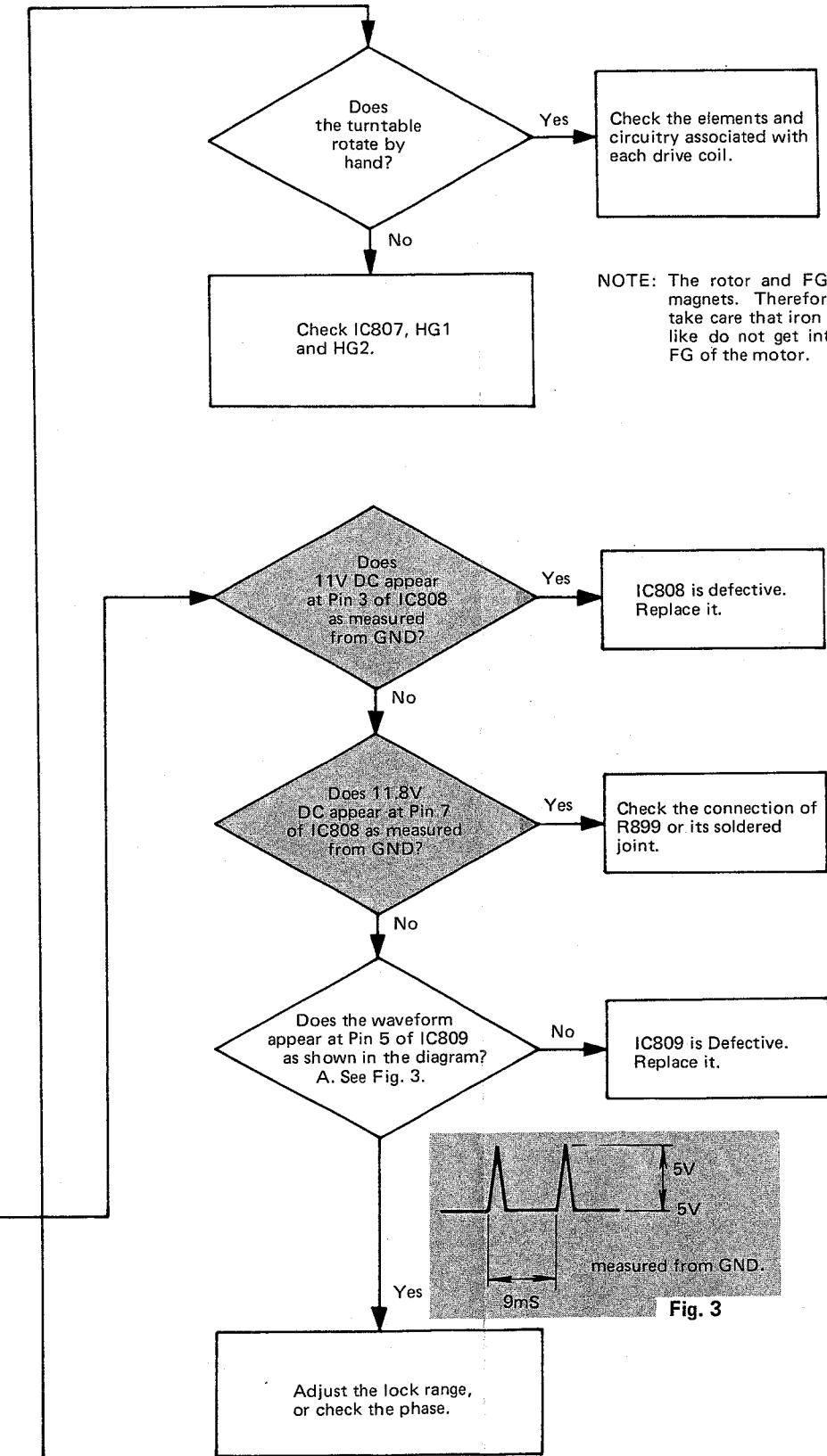
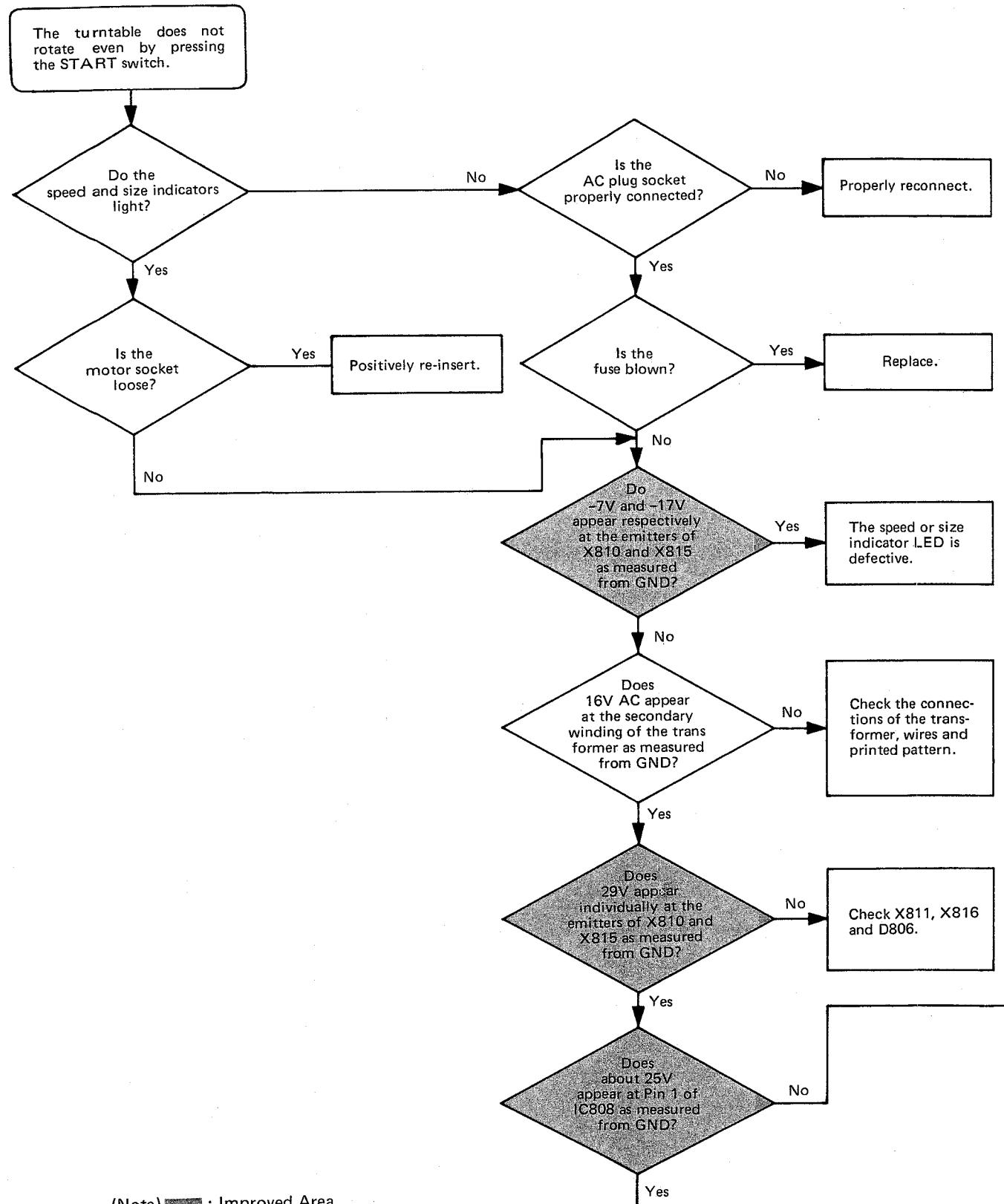


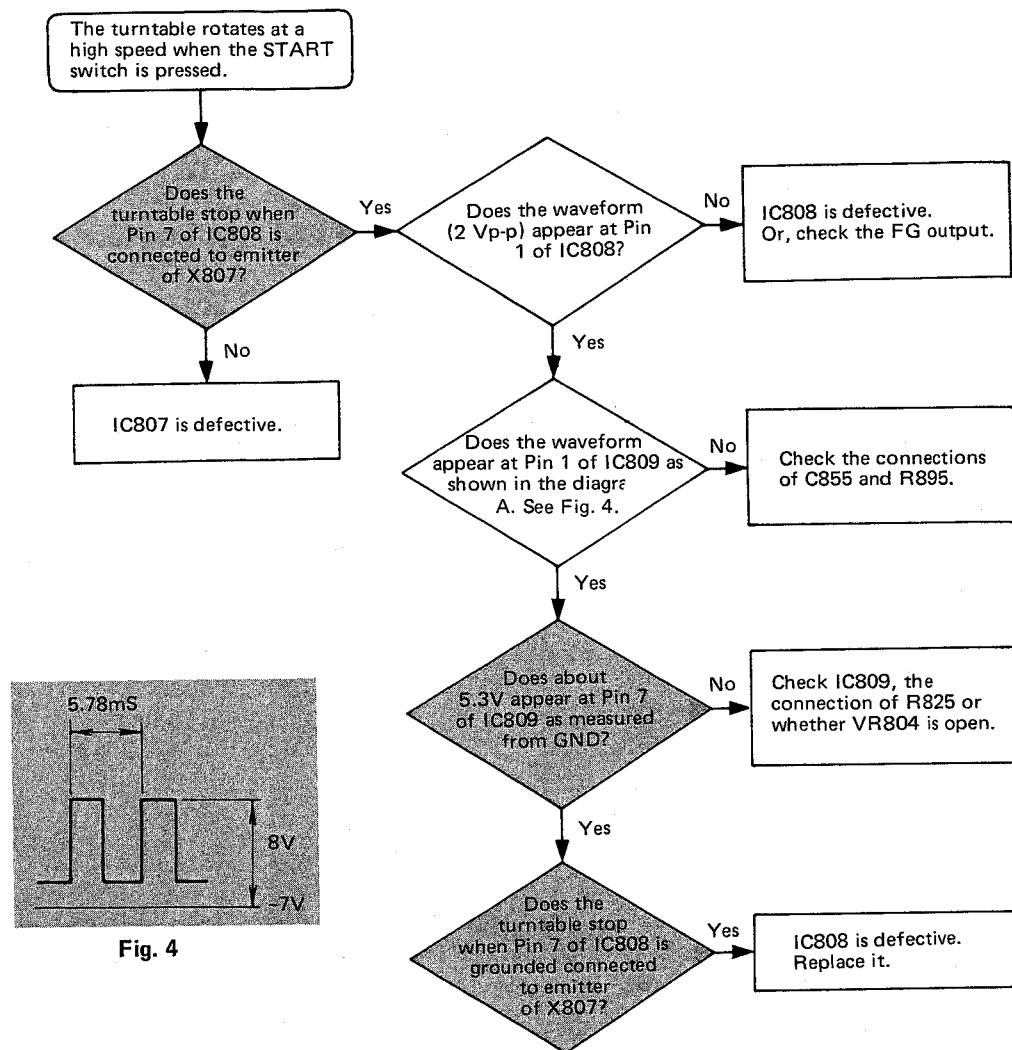
Fig. 2

### 3. Troubleshooting Charts

#### 3-(1) The turntable does not rotate

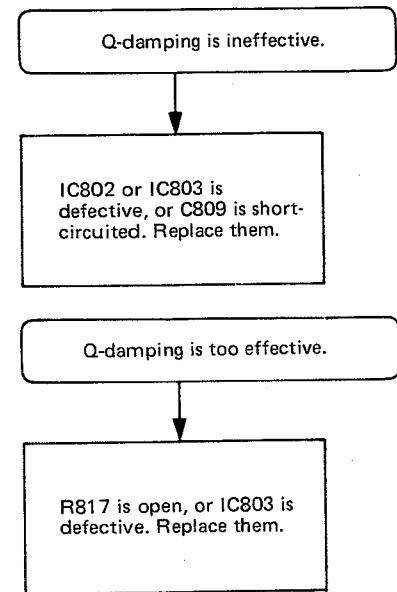


### 3-(2) The turntable rotates at high speed

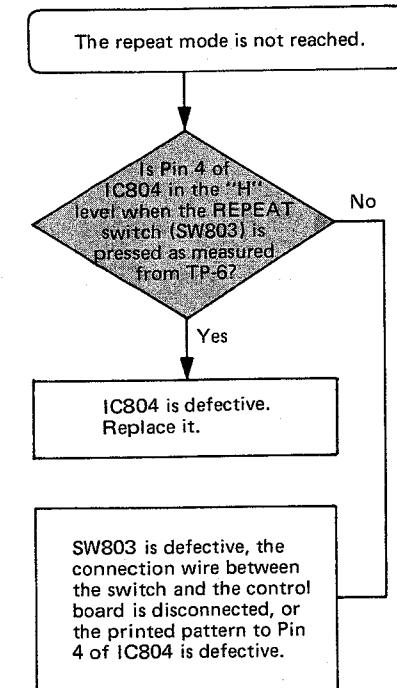


(Note) █ : Improved Area.

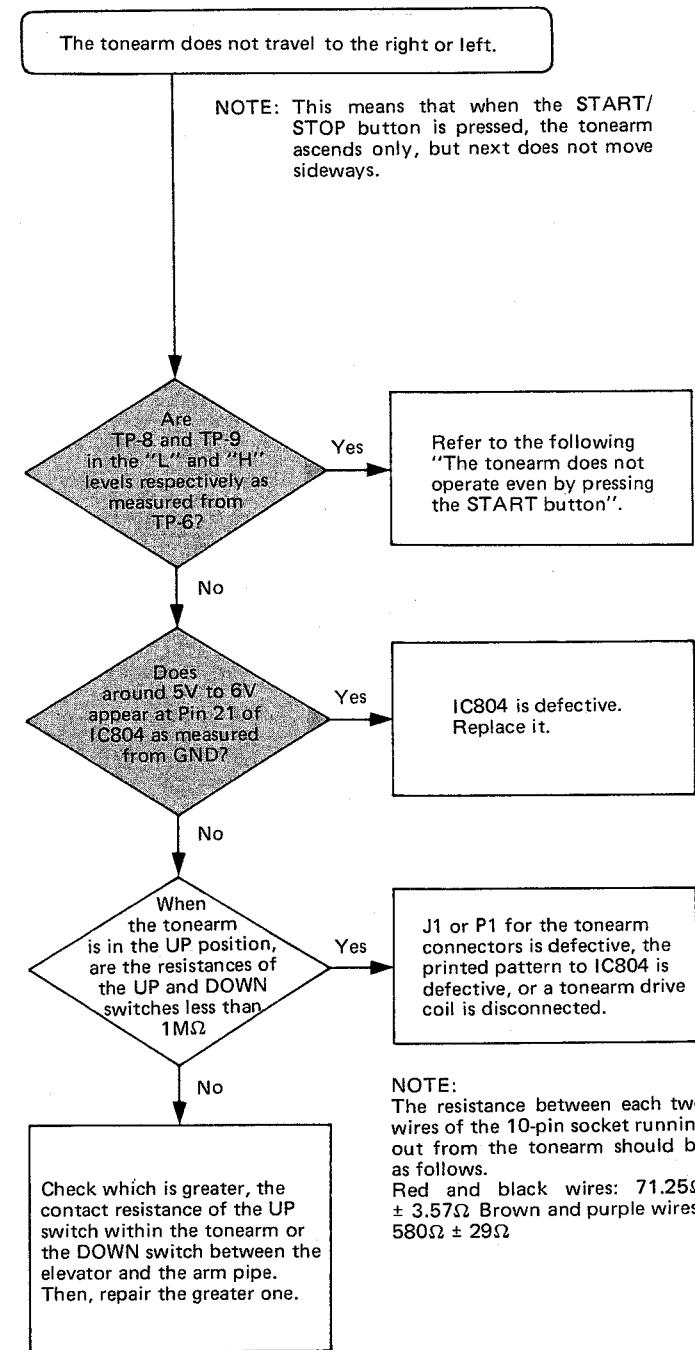
### 3-(3) Q-damping is abnormal



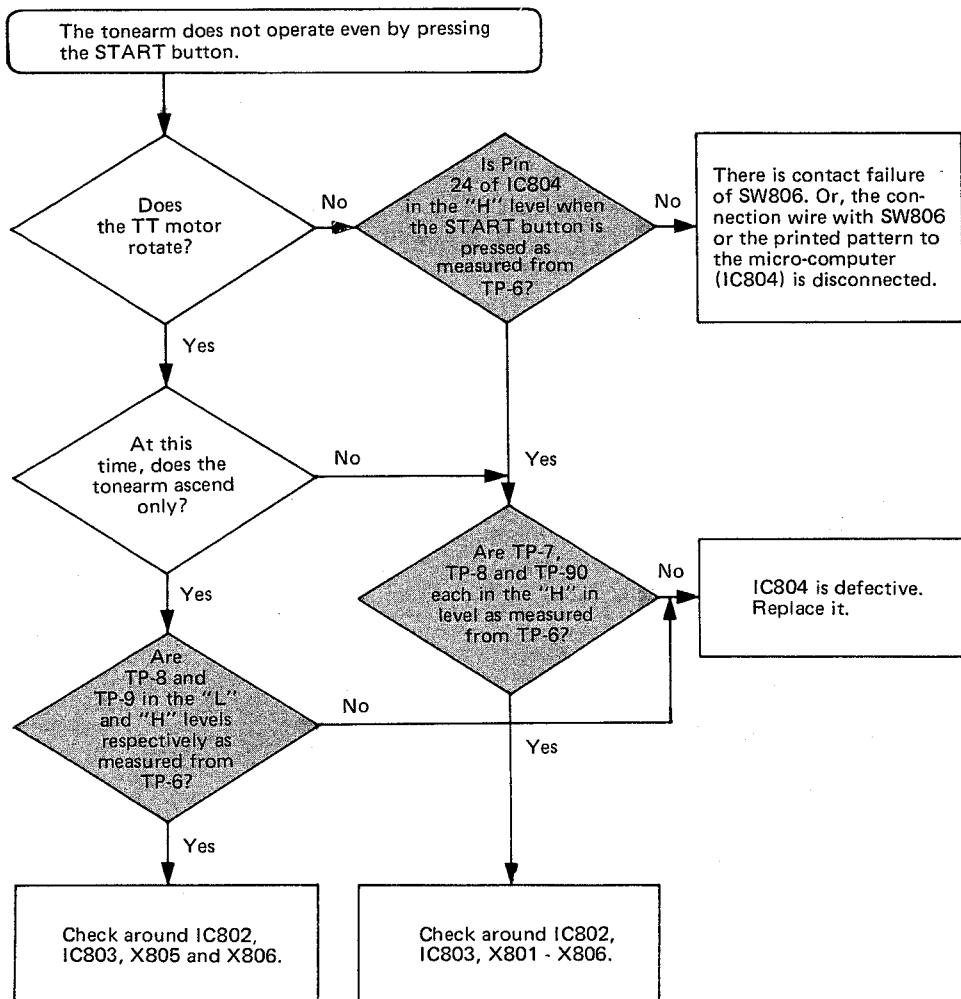
### 3-(4) Repeat operation is abnormal



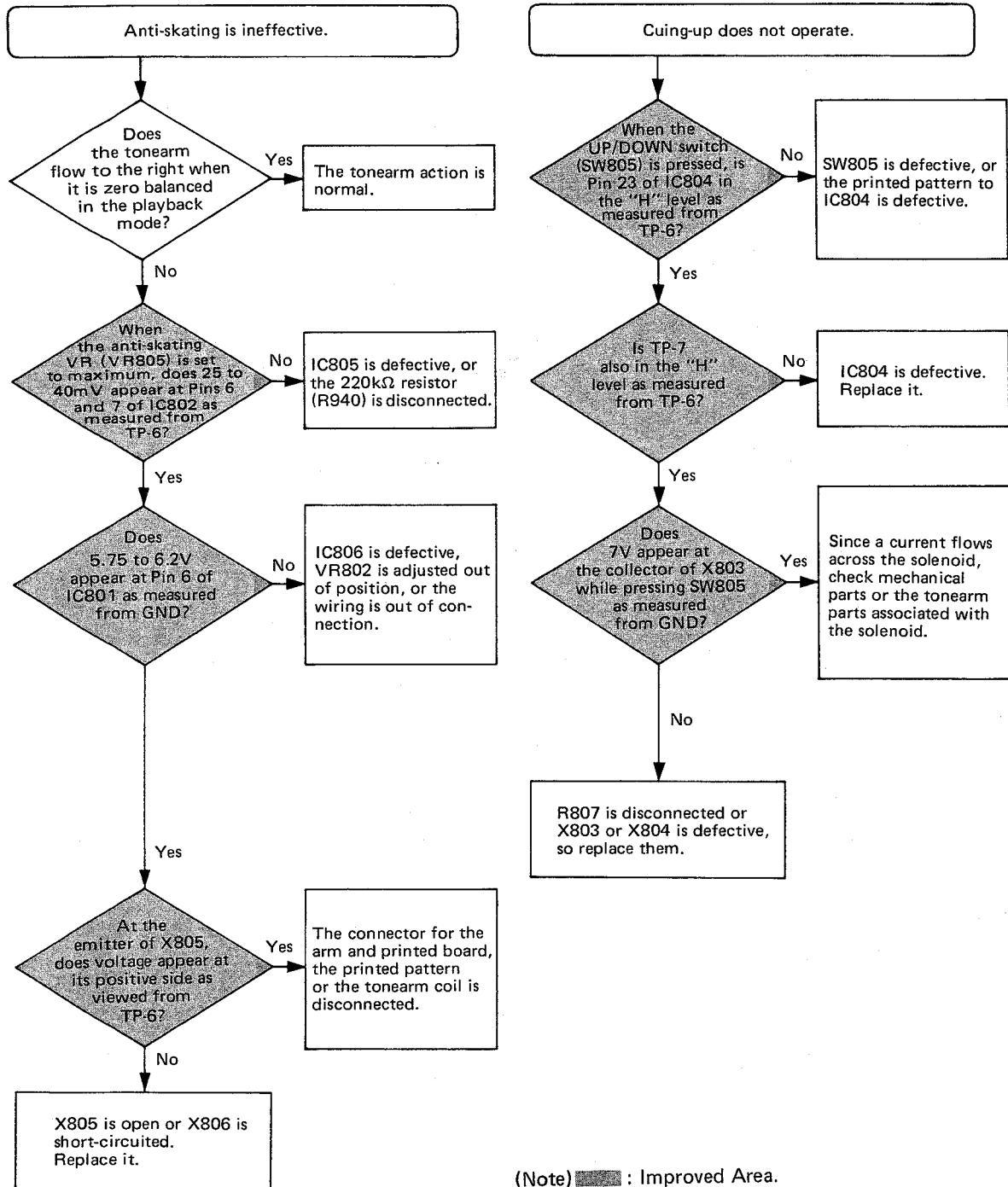
### 3-(5) Tonearm action is abnormal



(Note) █ : Improved Area.

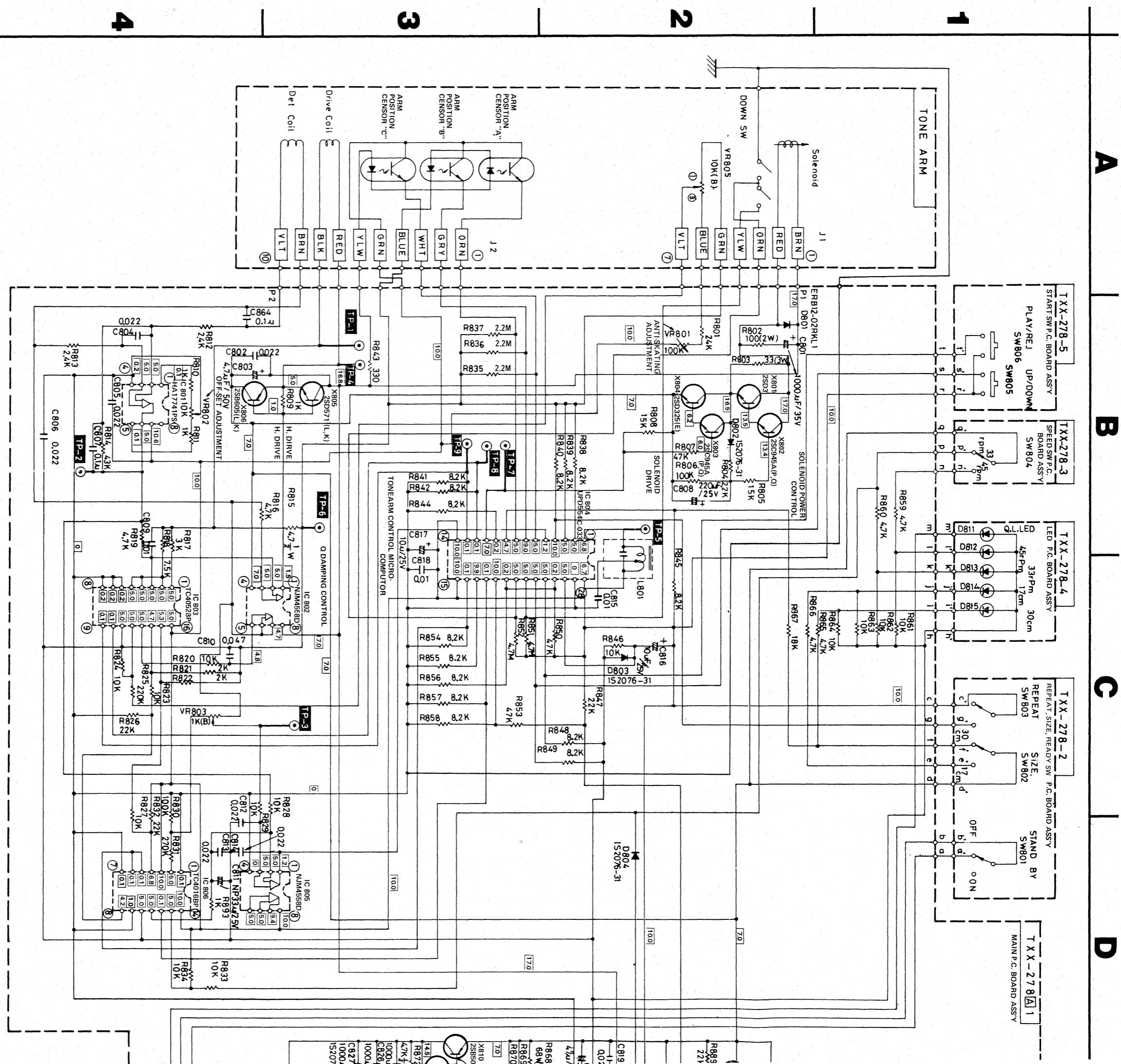


(Note) █ : Improved Area.



(Note) ■ : Improved Area.

# 4. QL-Y3F Schematic Diagram



- Notes:**
- Voltage values in   are positive.
  - Voltage values in   are negative.
  - indicates positive B power supply.
  - indicates negative B power supply.
  - indicates signal path.

- When replacing the parts in the darkened area () and those marked with , be sure to use the designated parts to ensure safety.
- Parts in red indicate transistors or ICs.
- This is the standard circuit diagram.
- The design and contents are subject to change without notice.

D

E

F

P.C. BOARD ASSY  
STAND BY  
SW801

MAIN P.C. BOARD ASSY

R882<sub>W</sub>-270

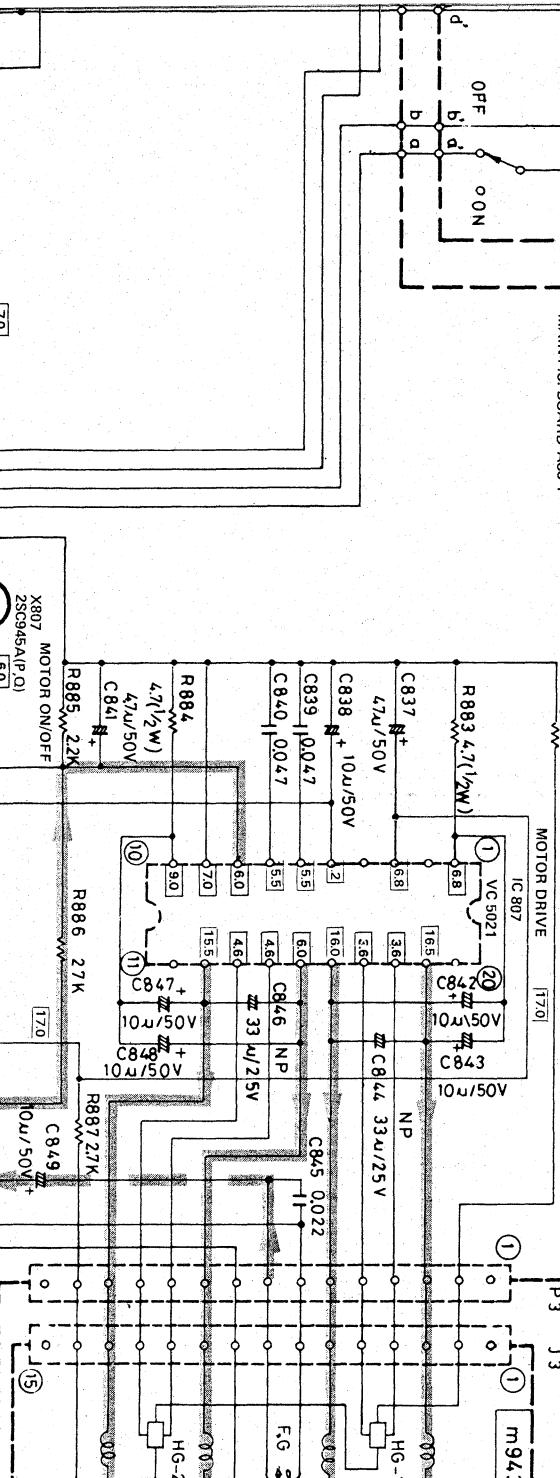
MOTOR DRIVE [17.0]

P3

J3

① m943G

1

OFF  
b  
a  
ON

d'

c

b

a

d

c

b

a

d

c

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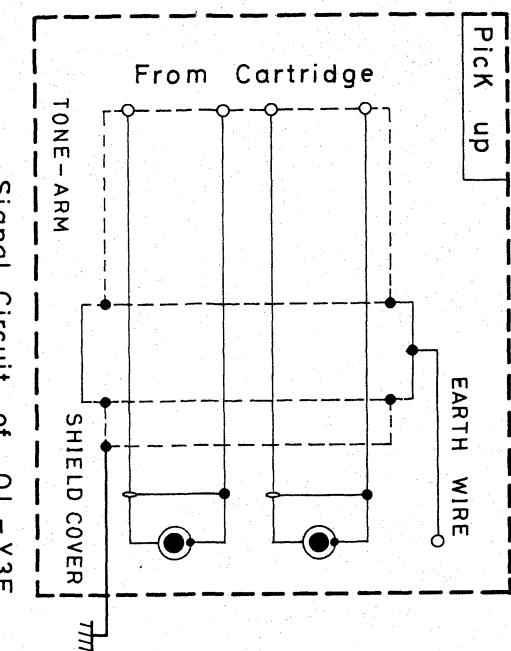
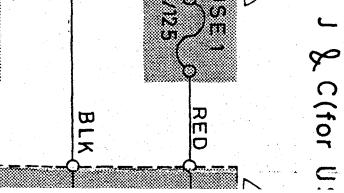
a

d

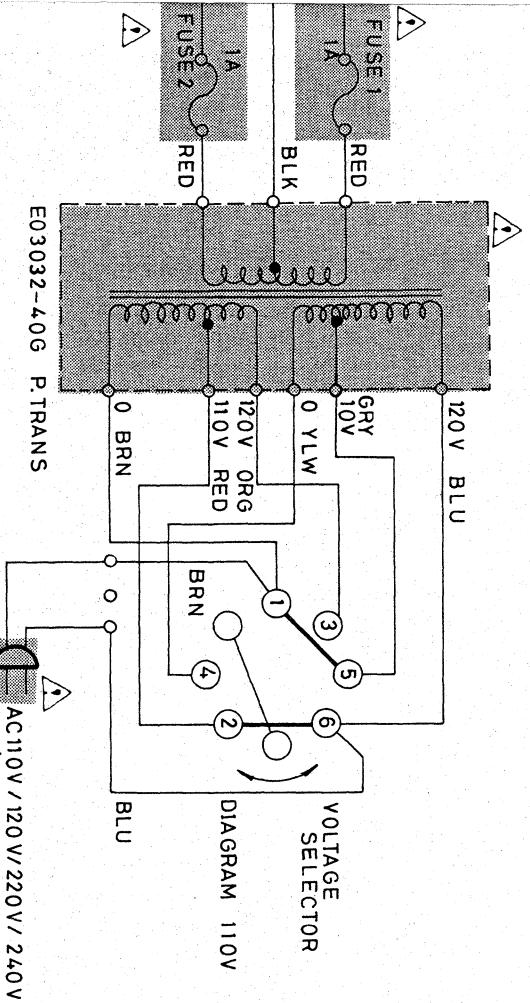
c

b

a



### P & U (for Pacex & Other areas)



E03032-40H  
P.T.RANS

| VOLT       | 110 V    | 120 V    | 240 V | 220 V |
|------------|----------|----------|-------|-------|
| CONNECTION | 1-5, 2-6 | 3-6, 1-4 | 3 - 4 | 2 - 5 |

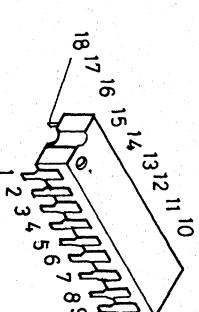
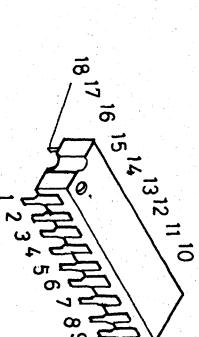
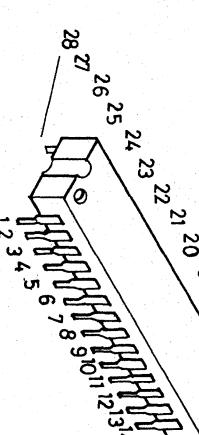
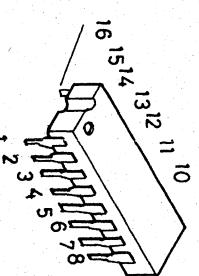
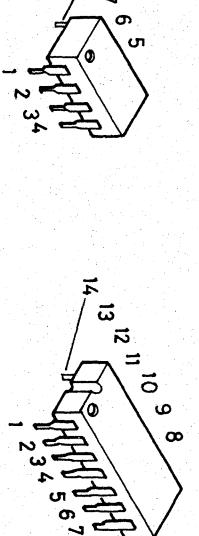
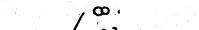
HA17741PS  
NJM 4558D  
NJM 4558D-D

TC4016BP

TC4052BP

UPD554C-033

VC4046



IC801 : IC802

IC805 , IC808

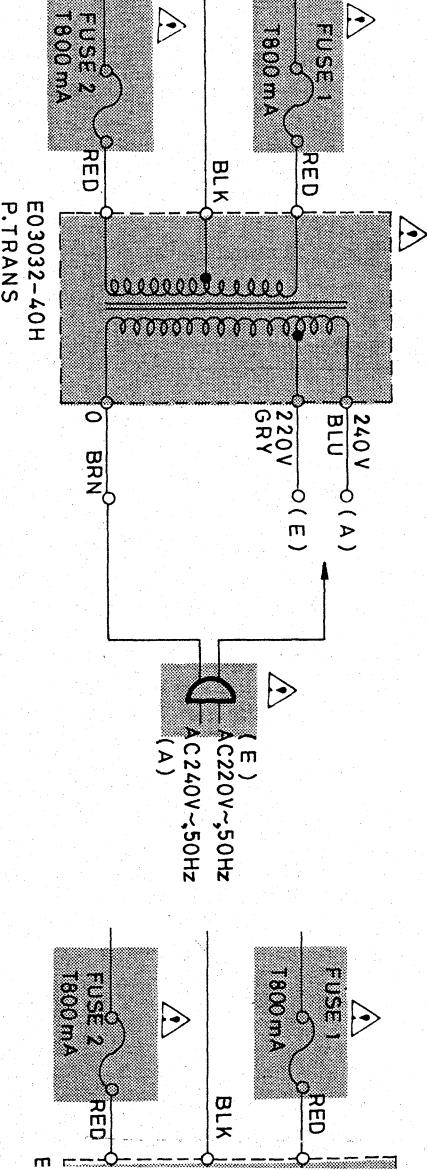
IC806

IC803

IC804

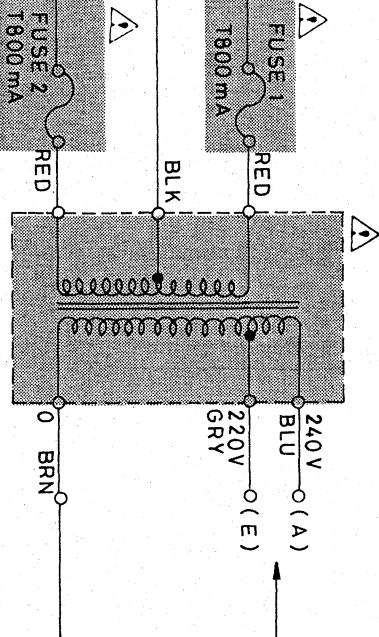
IC809

### B S ( f )



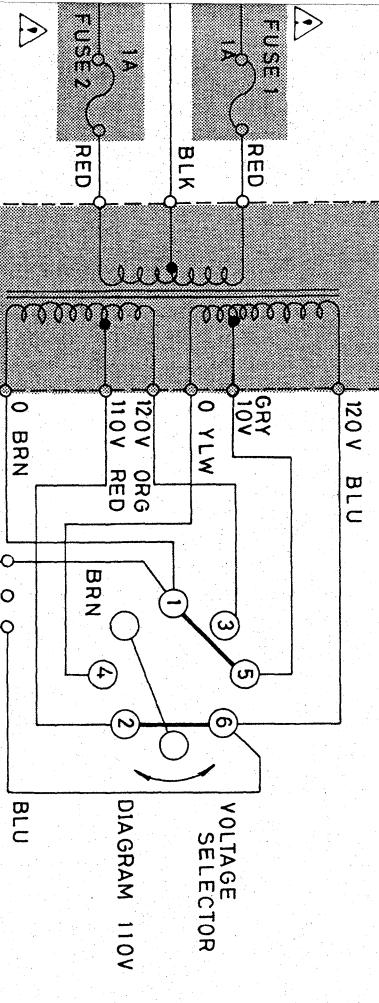
E03032-40H  
P.T.RANS

### E & A (for Europe & Australia)



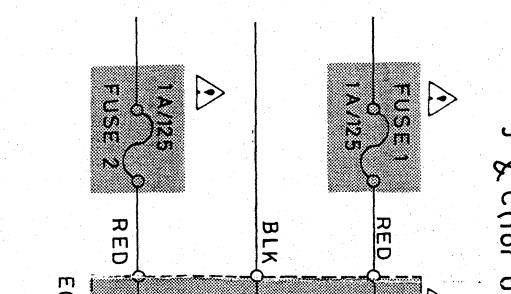
E03032-40H  
P.T.RANS

### P & U (for Europe & Australia)



E03032-40G P.T.RANS

### J & C (for U)

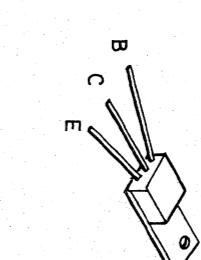
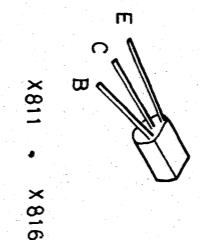
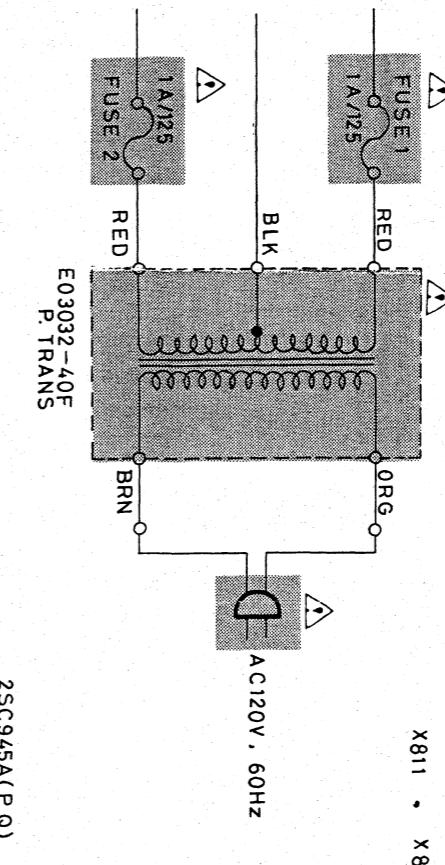


2SD438 (E)

2SB560 (E)

2SD325 (E)  
2SB511 (E)  
2SB507V(E)

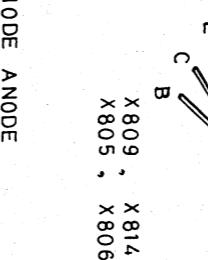
J & C (for USA & Canada)



X801 , X804  
X810 , X815

2SC945A (P,Q)  
2SA733A (P,Q)  
2SA733A (P,K)

CATHODE ANODE  
E C



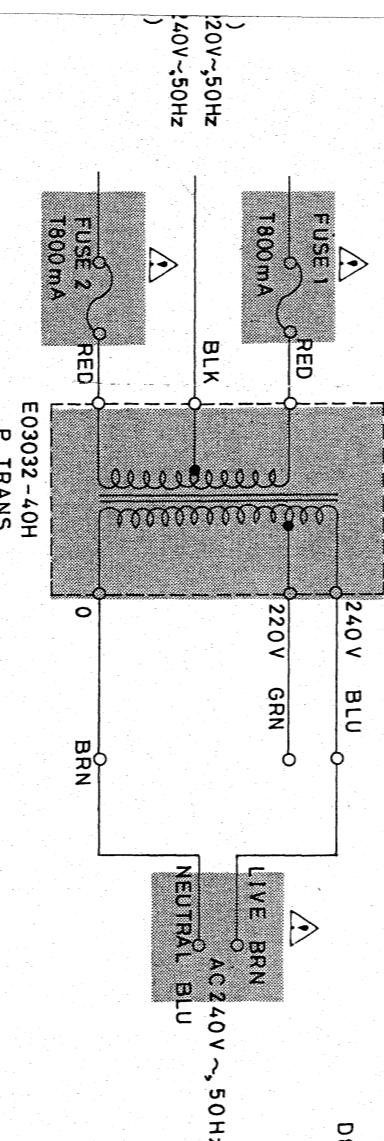
X809 , X814  
X805 , X806

X838, X839, X840

X802 • X803  
X807 • X808  
X812 • X813  
X817 ~ X819

LN221RP • LN321GP  
AC 240V~, 50Hz

D812~D815, D811



D801

ESAB03~02A

RD5,6EB3

1S2076-31

VC 5021

6



IC807

D805  
D806  
D802 ~ D804  
D807 , D808  
D810

D809

